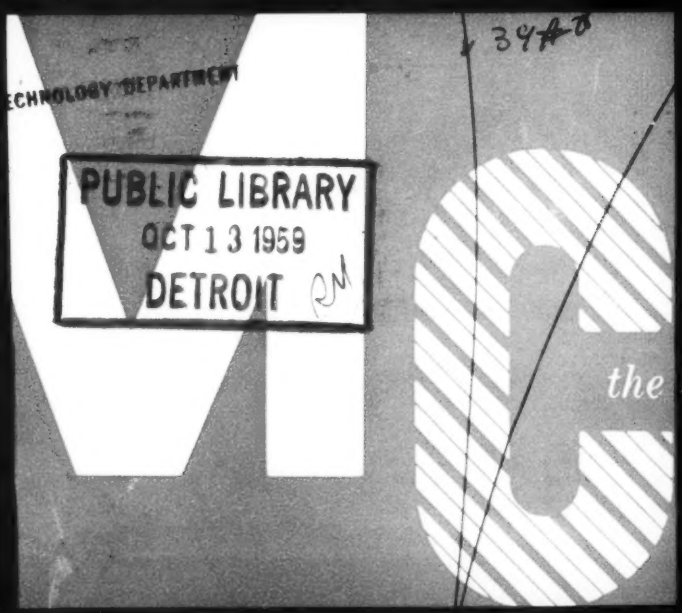
October/1959

- *Multi-point viscosity determination*
- *How pump bars affect casting efficiency*

Candy Packaging and Marketing

- *New method for fancy packaging*
- *Millar establishes corporate identity*
- *New packages for Peggy Kellogg*



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Dresel honored

Dr. Theodore Heuss, President of the German Federal Republic, has awarded Hans F. Dresel the Knight's Cross of the Order of Merit of the Federal Republic of Germany.

Richardson advertises "light candy"

Thos. D. Richardson Company is using the slogan, "the light candy is the right candy for holiday occasions and after dinner always" in full color ads in consumer magazines. **McCall's, Everywoman's Family Circle** and **Woman's Day** are among the publications on the schedule. The Fall promotion will be supplemented with a special mailer to the trade and an extensive trade advertising program. The holiday theme will be carried through with point of sale display posters.

Whitman's sets Fall advertising

Full color ads in the **Saturday Evening Post** and **Reader's Digest** will supplement a TV campaign for Stephen F. Whitman & Son. The company plans to co-sponsor a CBS spectacular, "The Wizard of Oz", on Sunday, December 13th and will also co-sponsor the NBC telecast of the first Liberty Bowl, post-season, football game from the Philadelphia Stadium. Car cards on the New York subway system will also be used as part of the pre-Christmas campaign.

Schrafft's agent for Tobler

Chocolat Tobler, Ltd., Berne, Switzerland, has named W. F. Schrafft & Sons Corp. sole agent in the United States for their Swiss Chocolates. Robert Cooper, formerly president of Chocolat Tobler American Corporation, has joined Schrafft's as manager of the Chocolat Tobler Division.

New member of NCA

The National Confectioners Association has announced that Boulevard Candy Co., 1925 South Western Avenue, Chicago, has become an active member of the Association.

Curtiss names finance VP

Gunnar C. Macki has been named vice president, finance of the Curtiss Candy Company. Macki has been comptroller at Curtiss since 1943.

Retailers lead industry rise

Manufacturer-retailers lead the industry in showing a rise of 20% in sales over seven months of 1959 as compared to the same period in 1958. The over-all industry gain for the seven month period was 8%, holding steady to the six month figure reported last month.

Item	Estimated sales of current month and comparison: July 1959 ($1,000)	July 1959 from July 1958	Estimated sales year to date: 7 months 1959 ($1,000)	Percent change from 7 months 1958
Confectionery and competitive chocolate products, estimated total	67,540	+4	612,050	+8
BY KIND OF BUSINESS:				
Manufacturer-wholesalers	55,452	+6	487,973	+7
Manufacturer-retailers[1]	4,924	+20	52,394	+20
Chocolate manufacturers	7,164	−12	71,683	+2
TOTAL ESTIMATED SALES OF MANUFACTURER-WHOLESALERS BY DIVISION AND STATES				
New England	5,420	+21	52,886	+8
Middle Atlantic	16,530	+9	149,871	+11
N. Y. and N. J.	11,751	+11	89,502	+10
Pa.	4,779	+6	60,369	+12
East North Central	22,996	+1	190,093	+8
Ill.	21,084	−1	171,814	+7
Ohio and Ind.	1,351	+37	11,175	+26
Mich. and Wis.	561	−11	7,104	(2)
West North Central	1,875	−20	17,603	−8
Minn., Kan., S. Dak., and Neb.	1,056	−27	11,044	−11
Iowa and Mo.	819	−10	6,559	−3
South Atlantic	2,707	+19	21,696	+14
Md., D. of C., Va., W. Va., N. Car., and S. Car.	1,044	+32	8,691	+26
Ga. and Fla.	1,663	+12	13,005	+7
East South Central: Ky., Tenn., Ala., and Miss.	934	+1	8,389	+3
West South Central: Ark., La., Okla., and Tex.	1,170	+2	13,898	+2
Mountain: Ariz., Colo., Idaho, N. Mex., and Utah	592	+22	5,530	+22
Pacific	3,228	+15	28,007	−2
Calif.	2,674	+17	23,045	−3
Wash. and Ore.	554	+6	4,962	+1

[1]Retailers with two or more outlets.
[2]Less than 0.5 percent change.

Type of product[1]	July 1959 Pounds (1,000)	July 1959 Value ($1,000)	First 7 months Pounds (1,000) Percent change from 1958	First 7 months Value ($1,000) 1959	First 7 months Value ($1,000) Percent change from 1958
TOTAL SALES OF SELECTED ESTABLISHMENTS.	87,263	32,546	713,493 +1	288,441	+5
Package goods made to retail at:					
$1.00 or more per lb.	971	963	20,244 −1	23,891	+4
$.50 to $.99 per lb.	8,421	4,414	64,478 +8	35,740	+13
Less than $.50 per lb.	15,525	4,032	116,784 +6	30,835	+10
Bar goods	39,811	15,616	338,637 −2	139,336	(2)
Bulk goods[3]	12,723	3,368	102,063 −1	27,794	+3
5¢ and 10¢ specialties	9,812	4,153	71,287 +9	30,845	+13

[1]A selected group of large manufacturer-wholesalers and chocolate manufacturers report sales by type of product. Companies reporting such detail account for approximately half of the total dollar-sales of manufacturers.
[2]Includes penny goods
[3]Less than 0.5 percent change.

Data from monthly "Facts for Industry" of the U. S. Department of Commerce.

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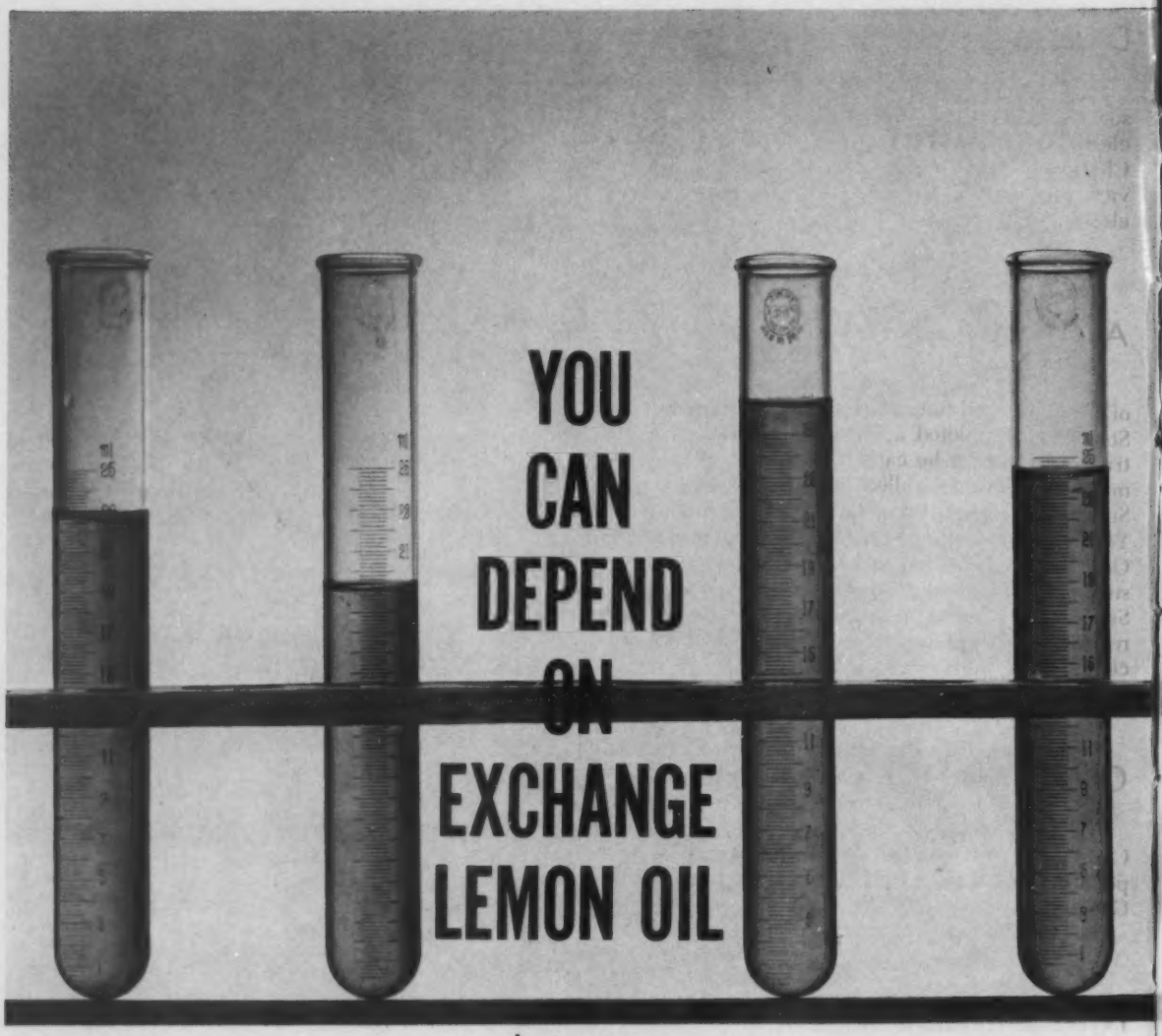

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Dickens president of Williamson

James A. Dickens who has been with Williamson Candy Company for thirty years was recently elected president of the company. He will succeed Charles R. Scully who retired. Mr. Dickens was vice president in charge of sales prior to his election to the presidency.

ARC secretary visits members

Thomas J. Sullivan, newly appointed secretary of the Associated Retail Confectioners of the United States has completed a five state, two week motor trip during which he called on more than 50 ARC members. The trip called "Operation Hello" took Sullivan through Indiana, Ohio, Pennsylvania, New York and New Jersey from September 21st through October 3rd. This trip is to be the first of many such get-acquainted gestures planned by the ARC. Sullivan hopes to gain knowledge of how members respond to the programs and services of the Association by visiting their shops.

Gerrish on NCA committee

Hollis G. Gerrish, president, Squirrel Brand Company, Cambridge, Massachusetts, has been appointed a member of the NCA Peanut Advisory Committee.

New president at Planters

Michael J. English was elected president of Planters Nut & Chocolate Company at a special meeting of the board of directors held on September 19th. Mr. English has been with Planters since 1917 and has held various positions in the sales department.

Other officers elected by the board of directors include Ralph J. Lisman, executive vice president and secretary; Peter J. McGough, vice-president in charge of production; Harry W. Guppy, vice president in charge of west coast operations; Hunter M. Haynes, treasurer; Paul H. Britten and Harry J. Pettit, assistant secretary-treasurers.

ARC conference in Miami

Howard Vair, president of the Associated Retailers Association, has announced that the mid-year conference of the association will be expanded into a three day meeting. The conference will be held January 15-16-17, 1960 at Hotel Fontainebleau, Miami Beach, Florida.

Your future factory

BY V. P. VICTOR, M.E., P.E.
Consulting Engineer, New York City

This twenty page booklet is a reprint of the five part article that appeared in The Manufacturing Confectioner earlier this year. Mr. Victor has had considerable experience in candy machinery design, process development and factory layout. Chapters in this book include . . .

Financial Planning
Plant Essentials
Preliminary Plant Layout
Project Organization
Process Design
Production Line
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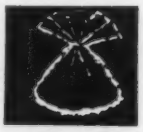
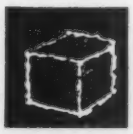
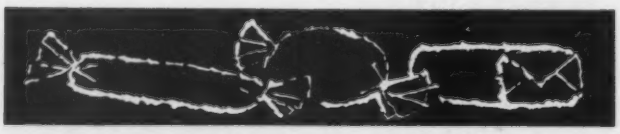
BEST FOODS OILS ARE YOUR BEST BET FOR TOP-SELLING KISSES  CARAMELS  AND CHEWY SPECIALTIES  BEST FOODS OILS ARE THE TOP CHOICE OF AMERICA'S LEADING CANDY MAKERS

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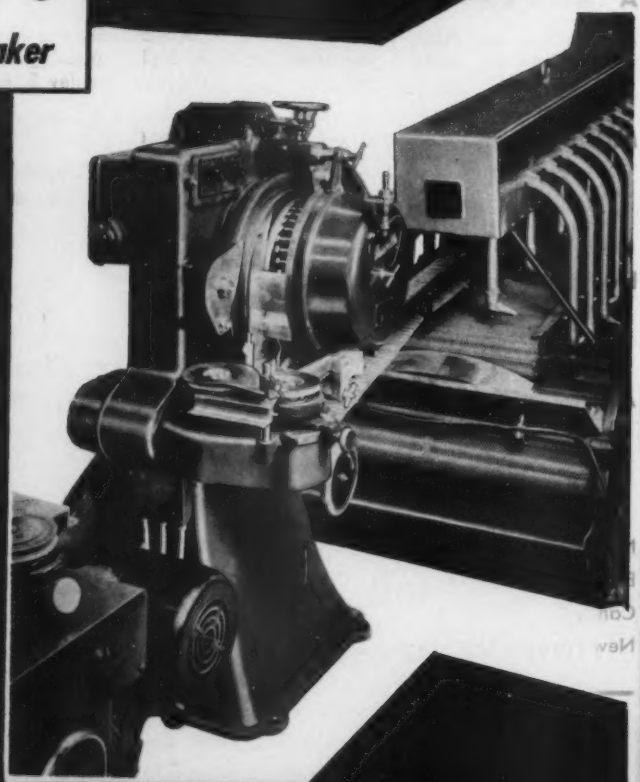

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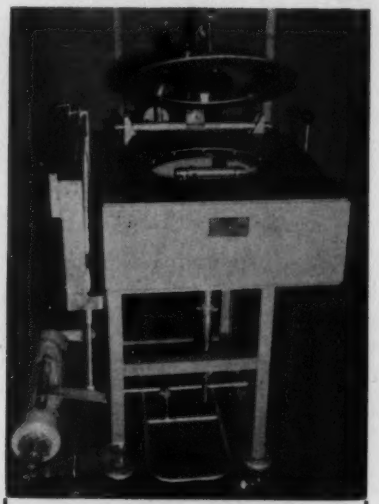

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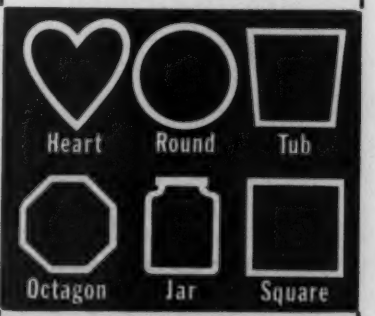

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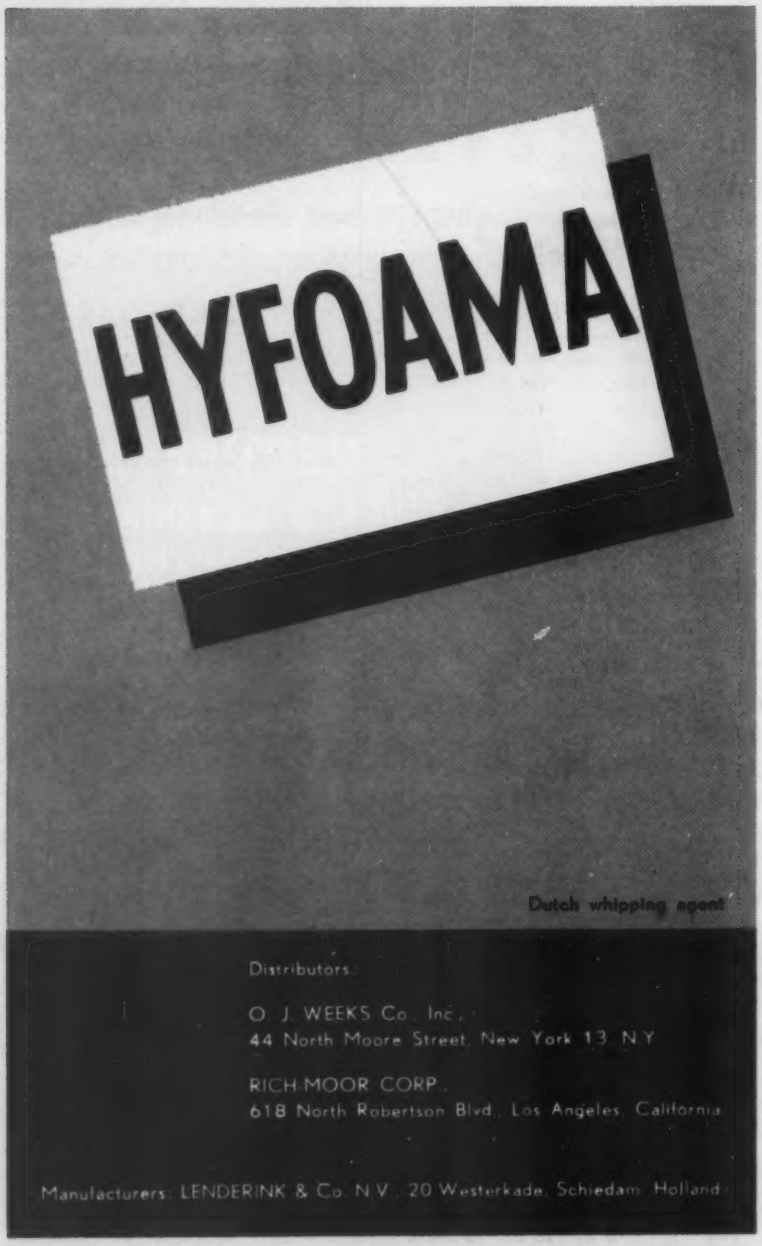
The sweet and the sour

Do you spend .9% of your sales on research and development? If you do you're right smack on the all food industry average according to the annual analysis of research and development budgets by the American Management Association. This figure is the lowest for any industry out of the 23 analyzed in this survey. We rather suspect that very few candy companies can measure up to this figure.

The following paragraph is quoted from the AMA release which accompanied the survey results.

"Those corporations that can capture leadership positions in the use of new technology within specific industries can command their destinies, both with respect to directions taken and profit levels achieved. Technology is the arch foe of established order and procedure. While it creates radically new opportunities, it also creates changing conditions that call for sweeping reappraisals of management thinking and action patterns if management is to turn technology into profits."

SEA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The Retail Candy Store Institute has launched an industry-wide drive to collect funds for its third year publicity and public relations program. This follows two years of concentrated effort to tell a nation-wide audience of the pleasures and appeal of candy.

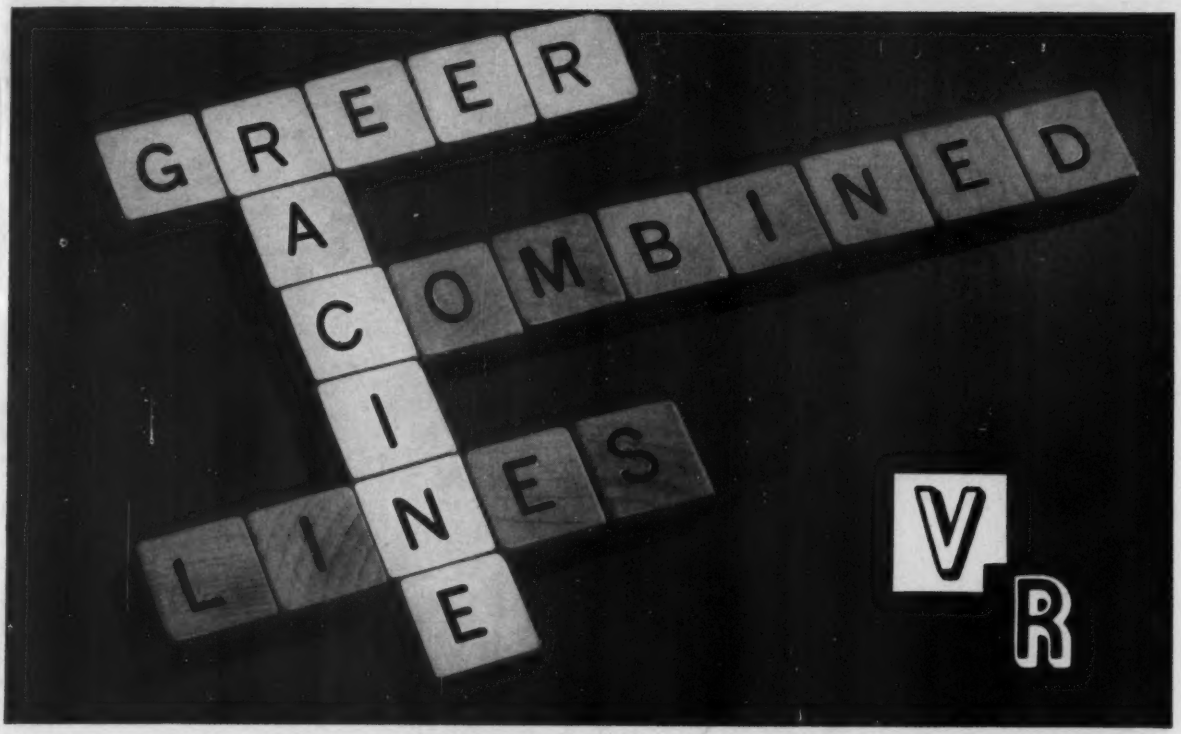
This program has been remarkably successful, both from the standpoint of industry support and from the standpoint of acceptance of its publicity in the consumer press.

This Institute was organized by the Associated Retail Confectioners for the purpose of publicizing candy in general, and the freshness and goodness of candy produced in manufacturing retail outlets in particular. Because of the nature of their publicity, however, by far the greatest amount has been spent primarily for promoting candy as a product rather than specifically the retail manufacturing outlet.

It seems, therefore, that it is entirely appropriate that this group go to the industry at large for support. They have a going operation that has proved its effectiveness and it remains the only public relations program operating in this industry. A considerable amount of spade work has been done by the RCSI publicity agency, Theodore R. Sills & Company. That firm has developed excellent contacts through which this publicity may be disseminated and the past two years of work with the industry have given them a sound understanding of the appeals candy has to the public and how best to promote them.

This is a truly remarkable example of a very small segment of our industry doing a pioneering job. It is worthy of support from the whole industry.

SEA



TO BETTER SERVE THE CANDY INDUSTRY

Important news for confectioners in both filled and hard candy lines! Greer has acquired Vacuum Candy Machinery Company and its subsidiary, Racine Confectioners Machinery Company, adding the Vacuum-Racine products and key people to the Greer operation. Our Wilmington plant, with its augmented staff, will soon offer confectioners the most complete machinery design, manufacture and service center in the country.

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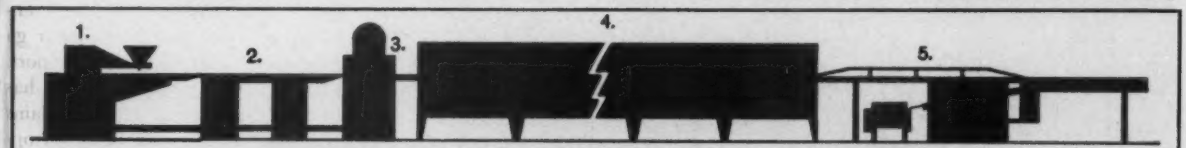
HERE ARE TWO EXAMPLES OF THE NEW COMBINATION IN ACTION . . . (with Greer machines in red, Vacuum-Racine in black)



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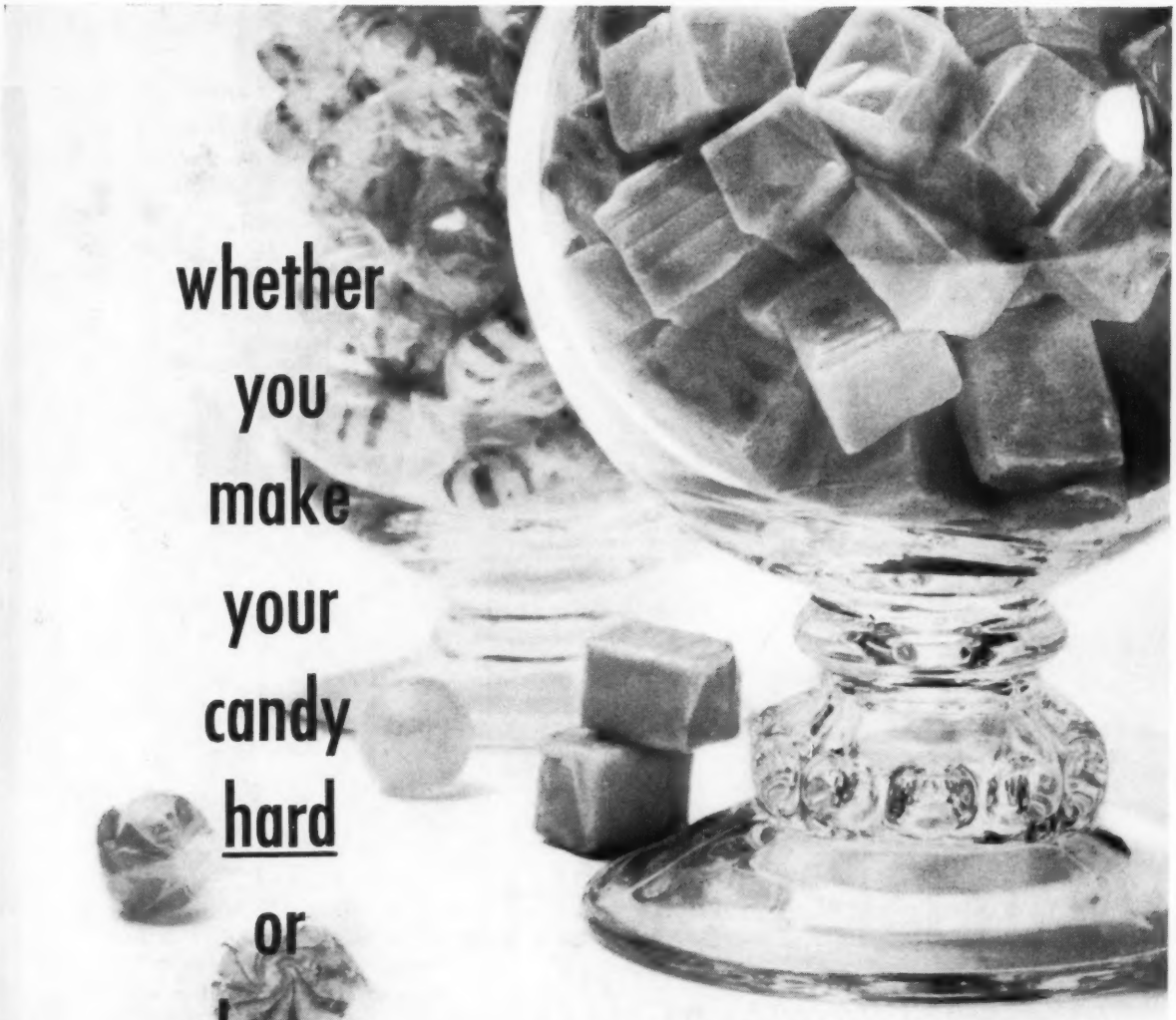

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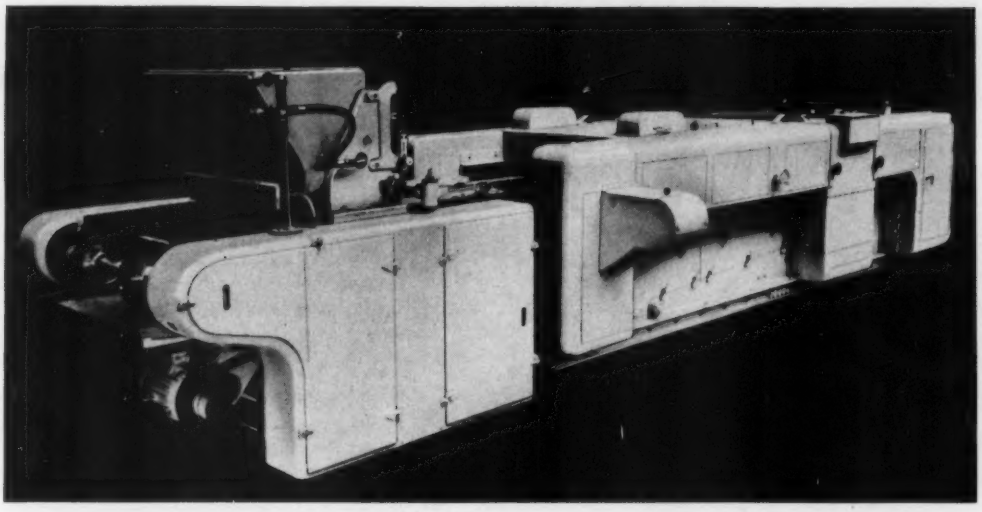

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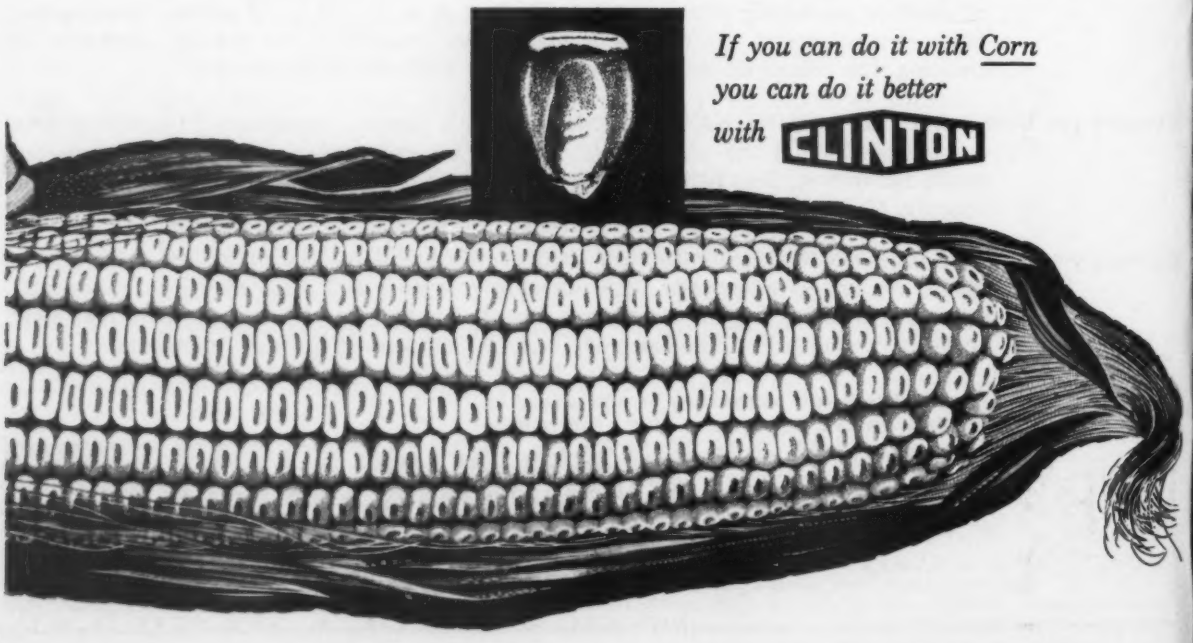

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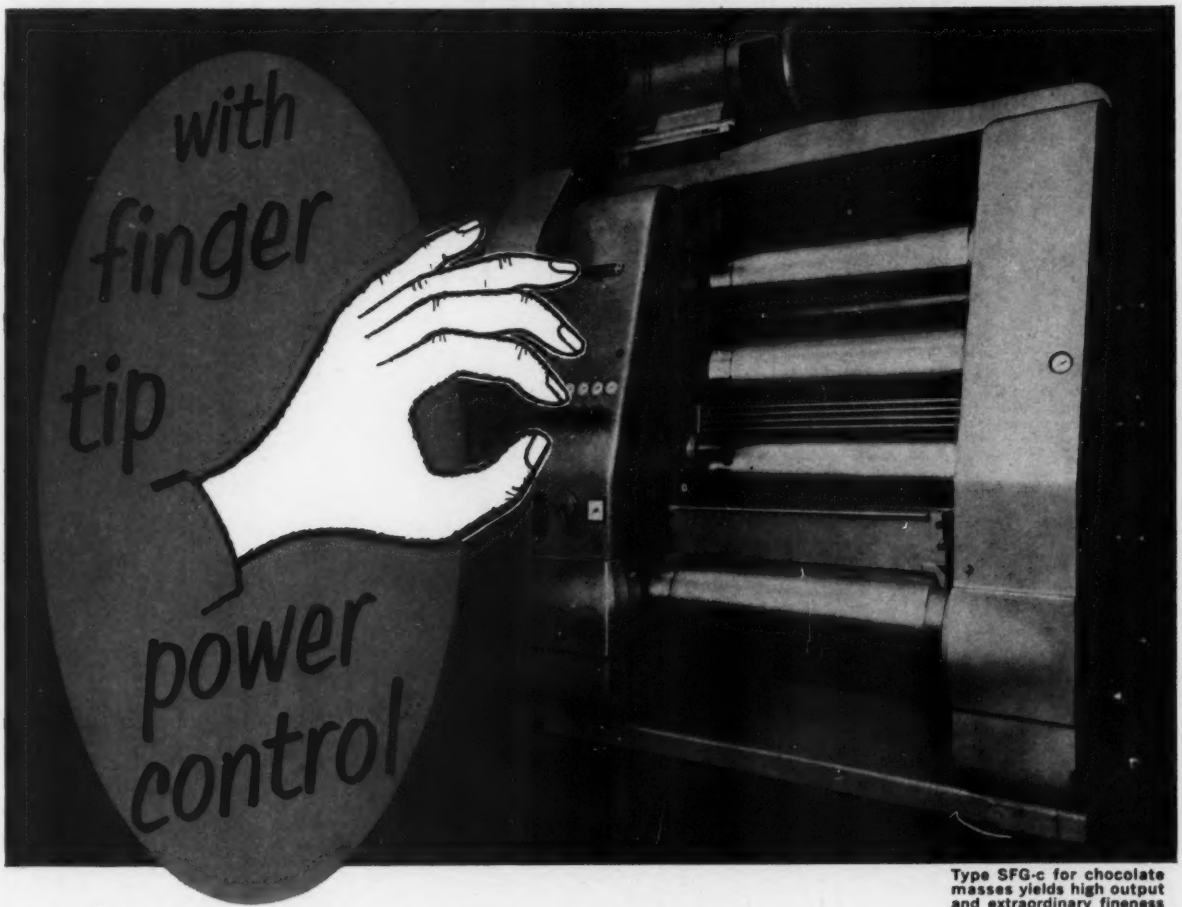

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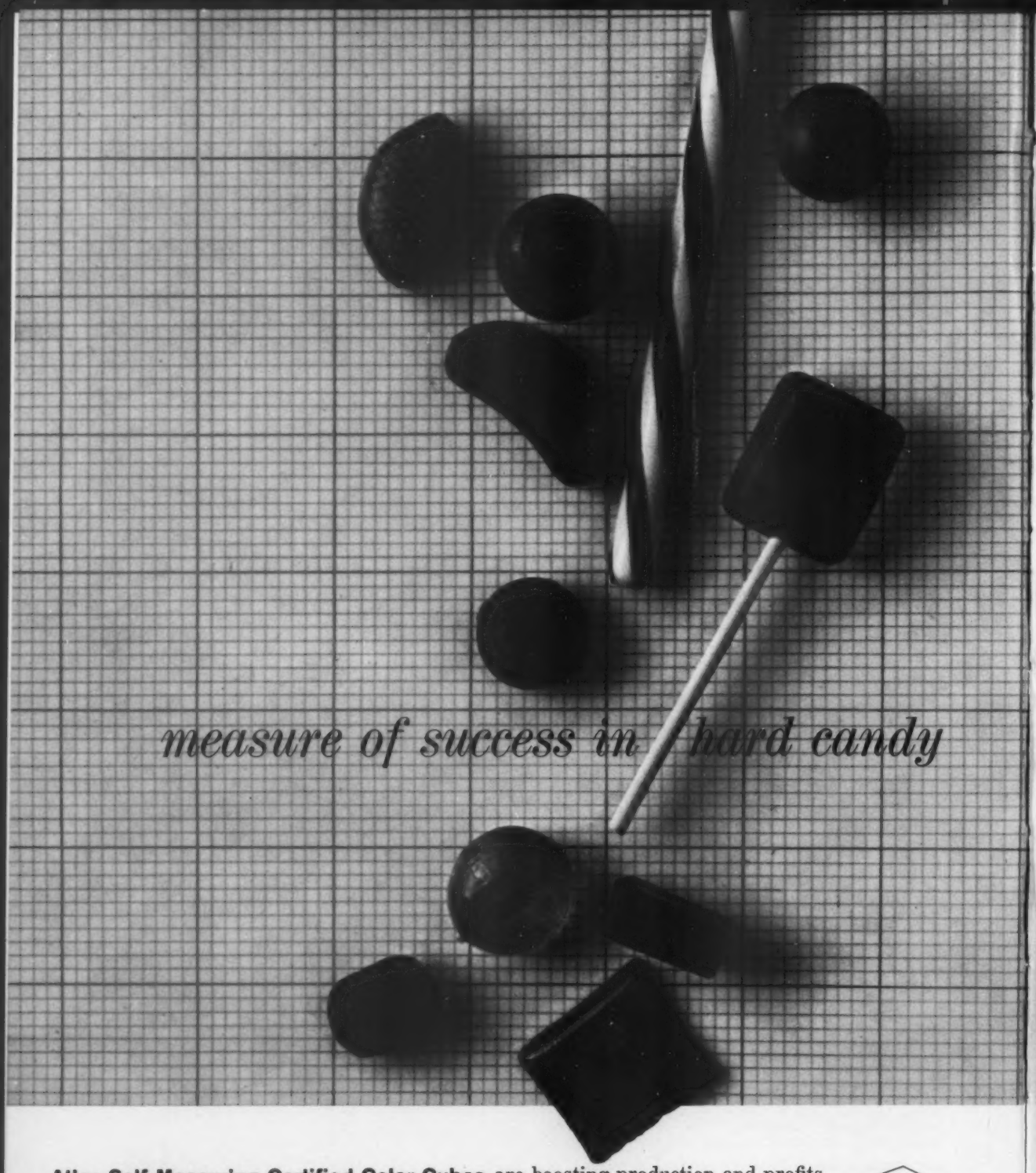

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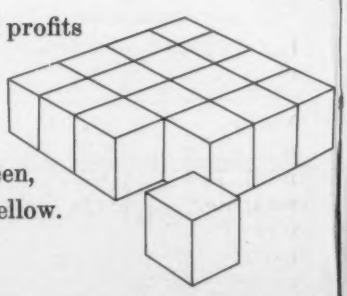

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the Manufacturing Confectioner

October, 1959

Volume XXXIX—Number 10

Multi-point viscosity determination

By J. Koch

The "Koch" viscometer is a simple form of multi-point falling ball viscometer, devised by myself for the purpose of quick and easy measurement of the fluidity of chocolates, fondants, toffees and many other similar semi-fluid substances.

Partly because the falling ball instrument is such a very simple one, with which the user can see for himself whether everything is behaving normally or not, and partly because so many of the more tricky problems of rate of shear are eliminated when this form of test is adopted, I decided some years ago to start a programme of chocolate viscosity testing on the basis of the readings given by this instrument.

In this article, when the term "viscosity" is mentioned, it will refer to coefficient of apparent viscosity determined at a rate of shear of 0.5 seconds^{-1}, as determined on the Koch Multi-point Falling Ball Viscometer. The viscosity figures will vary considerably from those based on the MacMichael instrument, primarily due to the much lower rate of shear employed in the Koch, and because the measurements are based on a constant rate of shear determined from a multi-point curve rather than a single point determination.

I have assembled the following basic data in the course of using this instrument regularly over a period of nearly seven years.

My first objective was to establish the viscosity which could usually be expected in a chocolate of any given total fat content; the following table was finally compiled rather more than four years

EDITOR'S NOTE: Several pages of accompanying manuscript have been eliminated from this publication. That portion dealt with the theory of the type of viscometer described and of some of the considerations which led the author to adopt it for his personal use.

For serious students of chocolate viscosity measurement, I very strongly urge the study of a booklet by this author which describes this instrument in detail and fully explains both the theory of its operation and the very practical advantages of the data that it gives.

The basic advantages of a multi-point viscosity measurement have long been recognized as the only method of determining the true viscosity of chocolate. Because of the nature of chocolate, nothing of a really basic nature can be found from a single point viscosity determination such as method NCA°M using the MacMichael instrument.

The Koch instrument seems at least to be a highly useful transition instrument, until a more mechanized method is developed to make multi-point viscosity measurements.

ago and I have not yet found any need to amend it:

Fat Content (percent)	Average viscosity (40°C, 0.5 sec. $^{-1}$ rate of shear)	Change in viscosity for 1 percent change in fat content.
30	520	80
31	440	70
32	370	55
33	315	30
34	285	25
35	260	25
36	235	20
37	215	15
38	200	15
39	185	

As mentioned in the heading to the table it is valid for a testing temperature of 40°C. The rate of change of viscosity with change of temperature is fortunately always small by comparison with the rate of change with change of fat content; for deviations of a few degrees only, it is normally quite adequate to estimate a 1% change in the viscosity figure for every 1°C change in temperature, which greatly simplifies the problem of temperature control for all normal viscosity testing purposes. In practice, a temperature of testing which is within 5°C of the standard gives quite sufficient accuracy, if the appropriate correction is applied to the result obtained. The precise correction, if investigated by testing a single sample at various different levels of temperature, usually proves to be slightly more than 1 percent per degree at temperatures below 40°C, but it may well be less at temperatures above 40°C. One particularly interesting observation that has come from experience of routine testing is that comparisons of viscosity should preferably not be made at a fixed temperature, but at a temperature which is related to the melting point of the particular sample. This effect shows up clearly when one comes to test chocolates which are based on fats other than cocoa butter. Ideally, of course, one would wish to test every chocolate when it is in the tempered state, ready for immediate use on moulding or enrobing plant, but this is seldom a practicable procedure, due to the very ready partial solidification of a tempered chocolate. The most satisfactory compromise appears to be to test each chocolate at a fixed number of degrees above its normal tempering temperature. Thus, if the standard for cocoa butter chocolate tests is set at 40°C, a hardened vegetable fat coating should usually be tested at around 47°C if it is desired to get the best possible comparison between the working properties of the two types of coating.

The table of "averages" quoted above was compiled from analysis of the results given by as many different chocolates as I could find, covering as wide a range of fat contents as possible; no regard was paid to lecithin content, moisture content or degree of refinement, except in so far as one or two obviously abnormal samples were discarded when computing the averages.

The indications are that a variation of plus or minus 2 percent in the total fat content required to give any specified viscosity is about the most that will be encountered in any chocolate which has been reasonably well processed by the present day orthodox methods. More than 2 percent extra fat is only needed to reach any given fluidity if the chocolate is abnormal in some readily detectable way—such as that it contains a conspicuous excess of moisture, or very little lecithin, or is quite exceptionally highly refined. The fat content needed can be reduced by more than 2 percent if certain rather unusual methods of processing are adopted, as is discussed below.

An interesting point that came out during the compilation of this table was that milk chocolates did not appear to be any more viscous than bitter chocolates of the same total fat content; some milk chocolate samples were certainly more fluid than plain ones.

Having established the average viscosity to be expected for any given fat content, the next step was to investigate the separate influences of lecithin content, degree of refinement and moisture content. Up to the present, no other factors of major importance have been identified—that is, if one treats the problems of particle size distribution and particle shape as coming under the heading of "degree of refinement".

The effect of lecithin content is easily investigated if one takes a single sample of chocolate and adds progressively more lecithin to it. Whilst I can scarcely claim to have tested a sufficient number of samples in this way to be able to lay down complete rules as to the effect of lecithin, I have got as far as the following at the present time:

1) The claim that lecithin can replace 5 percent of total fat content appears to be generally true and I have not yet identified any upper limit of fat content at which lecithin ceases to have this effect (Note: tests have not been made outside the common range of chocolate fat contents). At normal enrober fluidities, one can often find a change in viscosity due to the addition of lecithin which is the equivalent of as much as a 6 percent increase in fat content.

2) The claim that an addition in excess of 0.3 percent of pure lecithin is damaging to the fluidity does not appear to be true. The first addition of lecithin to a chocolate always has a much greater proportionate effect than the later ones, but the fluidity has always continued to improve when more lecithin was added. I have not exceeded a 0.75 percent addition of commercial lecithin, however, and do not generally recommend the use of as much as this, due to its effect on the flavour of the chocolate.

3) The effect of lecithin on very low moisture content chocolates (see below) is just as pronounced as it is on normal or high moisture

content chocolates. This is surprising, in view of the theories which have been advanced to explain how lecithin acts, but I have yet to find the slightest indication that the effect of lecithin changes when the moisture content of the chocolate is altered.

Rather more difficulty attaches to assessing the effect of degree of refinement on viscosity, largely because it is only slight over the normal range of fineness encountered. There is also the problem of measuring a degree of fineness and defining the difference in particle shape produced by different forms of refining treatment. For instance, refining on warm rollers generally tends to produce elongated cocoa particles whilst refining on well cooled rollers produces cocoa and sugar particle sizes which are much more nearly equal in size and shape (both tend to become cubical, or near cubical, when the rollers of a refiner are really cold). A refiner in bad mechanical condition, especially if it is the knife which is badly set, tends to produce an excess of superfines (at low overall operating efficiency), whilst different methods of operating the less orthodox types of refining machine, such as the MacIntyre machine, can produce different particle size distributions. A secondary effect of the temperature of the rollers on a roller refiner, a very important one in this instance, is that refining on cold rollers usually causes an appreciable increase in the moisture content of the sample. Some simplified form of fineness test is obviously essential for practical purposes and the system I have adopted is always to check the fineness of the sample when I take a viscosity test, but to do it by a quick and simple method; the one which I prefer is the micrometer test, which is slightly sensitive to the viscosity of the particular sample, but otherwise gives very reliable and reproducible results. With experience, one can even make a limited assessment of the type of particle size distribution which is present (the way in which the sample reacts to repeated turning of the micrometer screw appears to be characteristic).

From a long period of observation of one particular chocolate—a roller refined milk chocolate of very low moisture content which normally shows about 270 poises viscosity for just under 30% total fat content—I come to the conclusion that the effect of varying the fineness between about 28 microns and 21 microns (micrometer test) is to require an increase of fat content of rather less than 1 percent at the higher level of refinement. It is only when finenesses run really fine, finer than 14 to 16 microns, that the fat requirement starts to increase quite rapidly. MacIntyre refined chocolates tend to require a rather lower micrometer reading than roller refined ones before they will taste equally fine, but they also do not require an excessive use of fat until exceptionally low micron figures are reached. Inferior styles of operation, or the use of badly worn machines of this type, can have a conspicuously adverse effect on the viscosity obtained. On the other hand, with

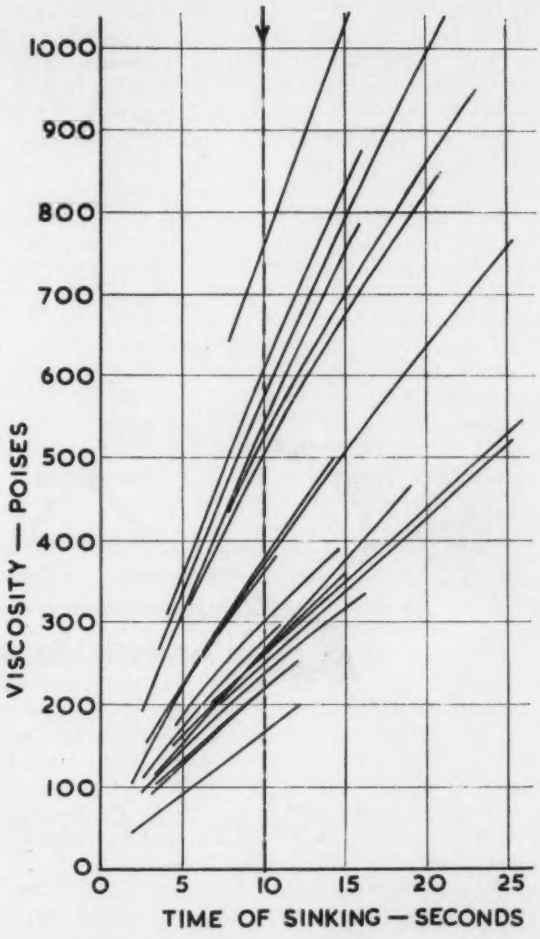

Figure 1. Typical consistency curves produced by chocolates tested by the multi-point falling ball method. Each curve represents one sample of chocolate. The fat contents covered by these samples range from 26% to 41% (total fat content).

Rate of shear equals 5 times $\frac{1}{\text{time of sinking}}$

appropriate treatments, I have been able to get very favourable viscosity figures from chocolates which have been refined on machines of this general type, rather than on roller refiners.

Whilst the expression "degree of refinement" obviously embraces a very large number of different variables which are capable of affecting the viscosity of a chocolate, it is fair to say that the effect of degree of refinement, under normal manufacturing conditions, is only slight by comparison with the effects due to both lecithin content and moisture content.

The moisture content of chocolates is clearly of great significance from very many points of view, but methods of moisture content measurement are generally so unreliable that I have preferred to tackle this problem from a different angle; another factor influencing this decision was the observation that the moisture content of the various ingredients at the moment when they are first mixed with sugar appears to be of greater importance,

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from most practical points of view, than the moisture content of the finished chocolate. Accordingly, I have attempted to assess the influence of moisture content by making samples of chocolate in various ways, all of them designed to produce a chocolate of exceptionally low moisture content. The result, which can be reached by more than one style of processing, is usually an economy of fat content of around 5 to 6 percent, by comparison with the table of "averages" already quoted. As these trials were only seriously commenced after I had gained some experience of the effects due to lecithin and degree of refinement, however, a substantial part of this fat economy should probably be attributed to "better than average" treatment of these variables.

Without making a very large number of trials under more or less artificial circumstances, of course, it is not possible to evaluate each separate effect in complete isolation from the remainder. As I also do not feel very confident that every cause of variation in the viscosity of chocolates has yet been identified, it is not a very easy matter to devise satisfactory special trials in which all influences except one are completely eliminated. My present assessment of the effect of moisture, however, is that special processing for the reduction of moisture content can reduce the fat requirement by 2 to 3 percent, by comparison with the table of "averages" which has been quoted above; this figure refers to types of processing which are practicable under large scale production conditions, and not to the more extreme treatments which may only be practicable under laboratory conditions. The evidence so far accumulated also suggests that pre-drying of the ingredients, prior to their mixing with sugar, is a more practical proposition than the special conching treatments which are sometimes used to reduce the moisture content of the finished chocolate. Conching, or at least a "second mixing" process, will always be an essential part of chocolate making, of course, and I certainly would not wish the value of the conching process for fluidity development to be under-estimated, just because there may prove to be some more effective method of controlling the fluidity effects due to moisture. Before one can make any useful assessment of the fluidity improving powers of any particular style of conche treatment, however, it is probably necessary to have at least a reasonable degree of knowledge of the viscosity effects due to degree of refinement and moisture content; the effects due to mechanical working in the conche can then probably be assessed in terms of the rate of shear and the pressures produced by the action of the particular type of conche. Mixing machines usually give their best performance at high rate of shear and relatively low pressure; the best fluidity development, on the other hand, is probably produced by machines which have a good "compacting" action, and this is associated with relatively low rates of shear and the development of high local pressures.

Those who have studied the development of chocolate making through the ages cannot fail to be impressed by the close association between fluidity development and flavour development, and it was very largely for the purpose of identifying the ways of processing which give maximum fluidity development for minimum usage of fat that the above programme of viscosity testing was devised. One has only to recall the invention of the chocolate conche and the first development of "fondant chocolate" to gain an impression of the way in which flavour and fluidity are associated; the significance of fluidity development goes even further than this, however, for I now have quite an accumulation of evidence that processing for maximum fluidity at minimum fat content also results in chocolates which are exceptionally resistant to the development of fat bloom. There is a very great deal still to be done, both on the theory of viscosity measurement and on the isolation of the various factors which have an influence of the viscosity of chocolates, but I hope that this summary, however incomplete, will at least prove helpful to others who want a way of assessing the degree of success given by the various special fluidity developing processes which they may be applying in their own works; my own experience indicates that the gains to be made from attention to this point go far beyond the simple economic motive of a saving of cocoa butter, some of the more specialised processes of fluidity development being clearly also most attractive from the point of view of flavour development. So far, I have always found the multi-point viscometer to be the most practical instrument for sorting the more effective methods of processing from the less effective ones; it may still take quite a lot of time and effort before the readings of any one type of viscometer can be absolutely equated with those of any other, but there is already a surprisingly large amount of information derivable from the simple consistency curve produced by the multi-point falling ball instrument.

Notes on the viscosity of chocolate required for particular purposes.

A chocolate enrober, worked at a band speed of 1.5 metres per minute or less, can be successfully used with chocolates of up to at least 500 poises viscosity. Such chocolates are generally considered too thick for most purposes, however, and the typical viscosity of chocolate used for confectionery enrobing purposes is about 260 poises. Biscuit enrobers, operated at band speeds of 4 to 5 metres per minute, commonly use couvertures of 180 to 190 poises viscosity. Very light marshmallow type confections may require a couverture with a viscosity as low as 130 to 150 poises. Shell plants and hollow chocolate spinning processes are generally operated with 250 to 260 poise chocolates. Bar moulding is done with all sorts of viscosities, depending to some extent on the size of bar, the efficiency of the shaking table and so on, but the range commonly encountered is from about 250 to about 550 poises

How pump bar design affects casting efficiency

By C. Steels
Baker Perkins, Ltd.

Pump bars used on master machines or moguls have not changed in principle for the best part of 40 years. Various methods have been employed in sealing the pump pistons but the basic design is relatively unchanged. Reciprocating pistons and distributing bars are still used in the most modern design pump bars.

The operation of the pump bar is quite simple, the main elements of the pump bar being the reciprocating pistons, distributing bar and nozzles. During the suction stroke of the piston, a slot in the distributing bar connects the piston inlet to the outlet port of the hopper. At the end of the suction stroke the distributing bar moves and closes the outlet port of the hopper and lines up a hole in the distributing bar with the outlet nozzles, and through this the material is deposited. By altering the relative movements of the pistons and distributing bar it can be arranged so that the distributing bar moves sharply to the suction position just after the piston has started the suction stroke. This causes a slight suck back in the nozzles and prevents tailings.

Pump bars are one of the most important items in a starch moulding plant but are often mishandled and misused. When pump bars are carelessly stored and have damaged nozzles they will cause tailings, inaccurate deposits due to blockage, and off center depositing. Pump bars that are not thoroughly cleaned out after use can cause excessive wear and tear upon the drive mechanisms and ultimately affect the accuracy of deposits.

Various methods are employed to seal pistons and to prevent air being drawn into the material being deposited. Granular packings, nylon piston rings, Teflon rings etc. are used. Some types of pump bars use no packing at all, the sealing principle being a number of concentric grooves in the piston filled with water or some other liquid medium which seal the pistons from drawing in air. The running clearances for this type of piston are much smaller than those for pistons with gland packings.

Single row pistons allow the greatest flexibility in mould layout, as an uneven number of rows per tray can be deposited, whereas with double pistons the mould layouts are restricted to multiples of two. The use of multiple row pump bars is becoming more common, but the more rows per pump bar, the more limited the flexibility of the mould layouts become. The disadvantages of single row pump bars are that they restrict the output of the machine in trays per minute.

In some instances it is possible to produce say 9 rows per tray, but if double pump bars are used then the number of rows per tray in this case must be limited to eight. This means that for every eight trays when single pump bars are used, nine trays will be used for the same output of centers when double pump bars are used. It is therefore necessary to weigh the advantages in single pump bars from the point of view of the maximum use of the tray against the advantages of the higher tray outputs when using double pump bars.

Staggered row pump bars can be used in

some instances to make the most effective use of a tray. In the case of nine single rows per tray as previously mentioned, it may be possible if the shape of the moulded piece is round, to get ten rows per tray, thereby both increasing the output of trays per minute and the number of centers per tray. The staggered pump bars are mainly limited for use with round shapes, elongated shapes being more economically produced by the straight pump bars.

Staggered row pump bars can be used in design to the straight pump bars and apart from the actual pistons and outlet nozzles being staggered, the only change is that the slot in the distributing bar, which in the case of single and double bars runs across the width of the distributing bar and at right angles to it, is in the case of the staggered pump bar cut out on a diagonal. This is necessary because this feeding slot in the distributing bar is common to both rows of pistons. During the suction stroke the diagonal slot connects each pair of staggered pistons to the outlet port of the hopper. During the depositing stroke, the distributing bar having moved sideways, diagonally placed holes in the distributing bar are then opposite the staggered or diagonally placed pistons and outlet nozzles and the pistons pump the material through these holes in the distributing bar and outlet nozzles into the moulds.

When considering multiple staggered bars it has to be borne in mind that staggered bars with odd number of rows are less efficient from the full utilization of the tray point of view than double row staggered pump bars. This is because the outer rows of the staggered row pump bars with say three staggered rows, are in line with each other and therefore a complete staggered pattern throughout the whole tray cannot be made. For example if a triple staggered pump bar was used for 12 rows per tray the 3rd and 4th, 6th and 7th, and 9th and 10th rows would not be staggered in relationship to each other, but directly in line.

In some cases it is possible that the output of centers produced by a double pump bar in a well laid out mould pattern, can be increased in some cases up to 20% by using staggered row pump bars, the shape of the center of course being limited to round or nearly round shapes. The efficiency of the machine, apart from its mechanical efficiencies, is judged by the number of centers that it can produce in a given time to an accuracy within prescribed limits. In some cases, where the pump bar is being continually changed to suit different lines, the time taken to change the pump bar must be taken into consideration. In such cases it may be more economical to produce a wide range of centers by one pump bar even though in some cases the mould boards are not used to their maximum capacity. In other cases where it is possible to get long production runs on one type of deposit it may be more economical to use different pump bars, some of which could be made to suit special centers thereby using the maximum capacity of the starch tray.

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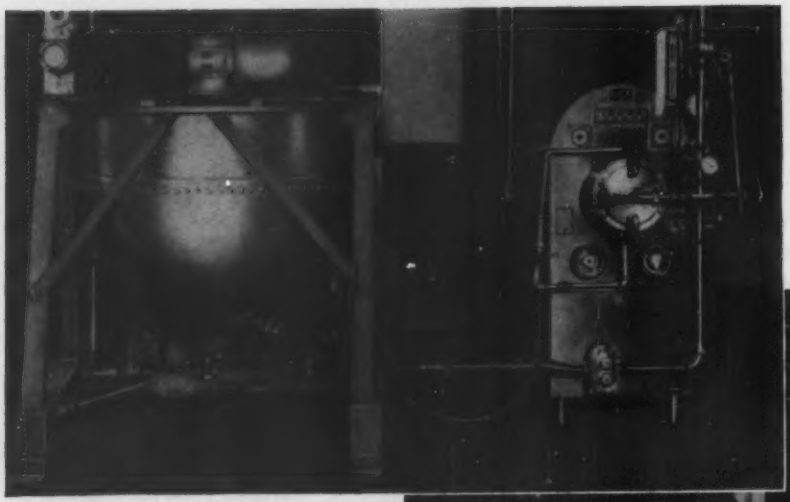
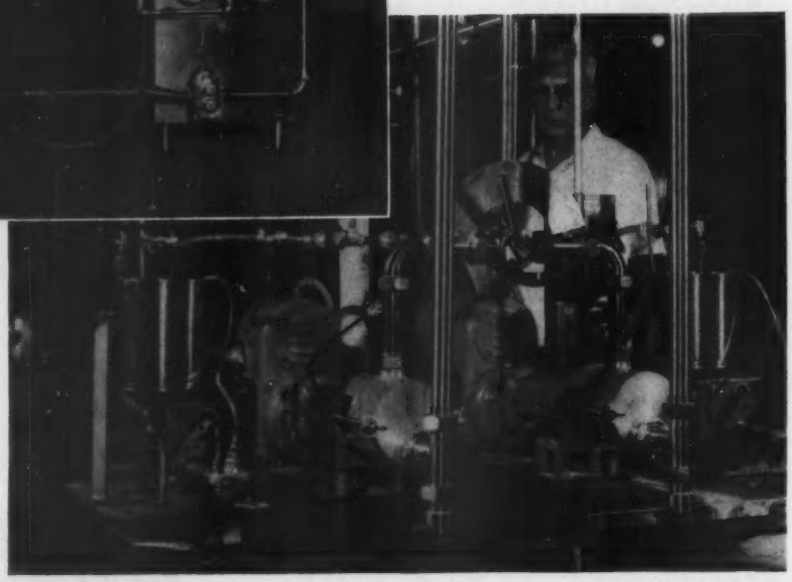
MARSHMALLOW BY HENRY HEIDE IN THREE COLORS AT THE SAME TIME



Model 10M5 Oakes Mixer and jacketed tank with agitator, in which the marshmallow syrup is prepared.



Special Color Injectors and Color Mixers which inject and mix color in two marshmallow streams simultaneously.

Henry Heide Incorporated, well known and long established Candy Manufacturer of New York City recently installed Oakes Equipment to solve the problem of producing several colors of marshmallow candy simultaneously from one master batch of syrup.

A Model 10M5 Oakes Mixer draws the syrup from the supply tank and provides continuous production of basic white marshmallow candy. Two Oakes Color Injectors and Color Mixers permit the production of two additional colors of marshmallow at the same time.

As shown in the photograph, the main discharge line from the Oakes Mixer is connected to a three way valve which divides the white marshmallow into two lines, each feeding an Oakes Color Mixer and each discharging separately. Each Oakes Color Injector draws the color from the small reservoir and injects this color into the marshmallow stream prior to entering the Color Mixer. The color is thoroughly mixed into the marshmallow by the Color Mixer with the result that two different and uniformly colored streams of marshmallow are delivered continuously to the Mogul hopper.

With this equipment it is possible to produce white and two additional colors of marshmallow continuously with one Oakes Mixer. The colors employed may be changed at will and the amount of color injected may be instantly regulated to produce any color variation desired. Any number of Oakes Color Injectors and Color Mixers may be employed depending on the number of colors required. And of course, the quality and uniformity of the marshmallow produced by the Oakes Mixer is unexcelled.

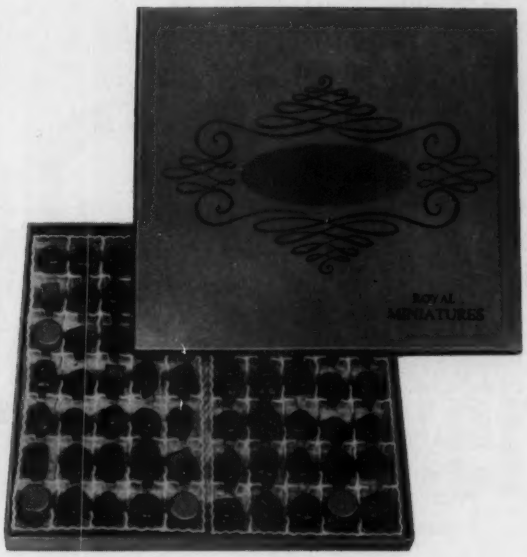
THE E. T. OAKES CORPORATION

26 COMMACK ROAD • ISLIP, LONG ISLAND, NEW YORK, U.S.A.

MC CANDY PACKAGING AND MARKETING

OCTOBER, 1959

A new method for fancy packaging



This was the original assortment packed with this plastic tray system. Because the pieces are fairly uniform, the divisions were all made the same size.

By STANLEY E. ALLURED, Editor

A new method of packaging fancy chocolates has been developed by Ralph Hopkin of Marquetand's in Philadelphia. He conceived the idea of using a rigid divider system to replace the traditional candy cups, primarily for the purpose of speeding up the packing operation. The result of several months of development work was a vacuum formed, very thin plastic tray, with formed pockets for each individual piece of candy. The sides of the pockets are cut low to make it easy for the customer to pick out a piece of candy.

There are distinct advantages to this method of packing, although it also raises some new problems. The cost of the trays is about twice the cost of the equivalent number of cups that it replaces. However, the cost of packing labor drops almost in half as a packer can use both hands smoothly and easily. This labor saving repays the additional material cost many times over.

This method also produces a very neat pack, as each piece is individually nested in precisely the right place. The advantages appear even more pronounced as the box of candy is gradually consumed. Right down to the last piece all remaining pieces are firmly held in their original position so there is no sliding around or loose cups to clutter up the original box.

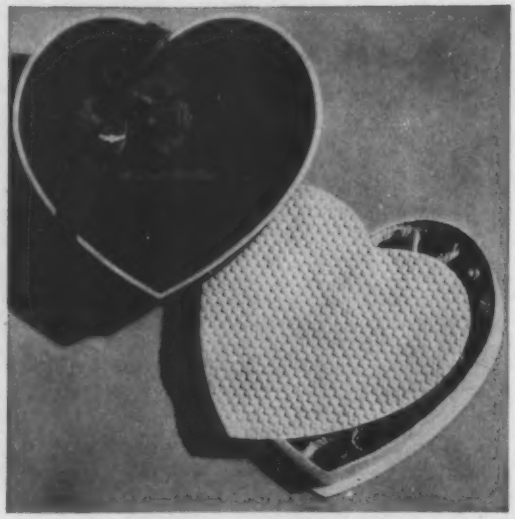
Those who ship candy by parcel post or truck will find a decided improvement in the arrival condition of boxed chocolates. Each piece must stay where it was placed and a jumbled package cannot result from rough handling.

Early in its development one of the principal detractions of this system was the appearance of the full box. Because the tray was transparent you could see through to the bottom of the box between the pieces. A special process for coloring the tray chocolate in color is presently being developed which should overcome the slack packed appearance of the earlier efforts.

So far Marquetand's is packing its most popular "general" assortment of chocolates and its miniature chocolates in plastic divider trays. As to the miniature assortment, the pieces are of a comparatively

For Protection and Attractiveness - Use

SWEETONE Decopad Hearts



Low cost Sweetone Decopad Hearts give you two extras . . . they protect your candy . . . and add to the attractiveness of your interior packaging.

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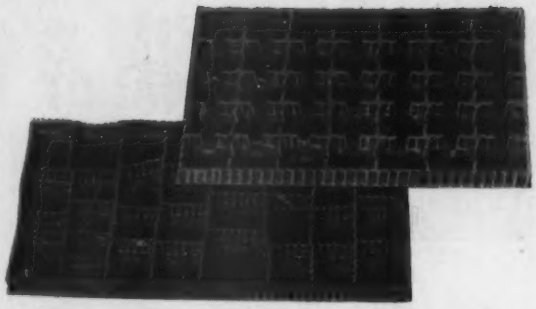

These are the empty plastic divider trays. The upper one is the one used in the Marquetand miniature assortment. The other, with various sized compartments, is of the types used for an assorted pack. Each compartment is sized and shaped to take a specific piece.

uniform size. Therefore the divisions in this basic tray are of uniform size. The tray carries thirty five pieces of miniatures which weighs out to a half pound. Two of these trays are placed in a box and packed to provide a pound box of miniatures.

Mr. Hopkin has taken the names of his children (Elizabeth, Nancy, Bill) and by reversing and manipulating syllables, come up with the Ziliban Corp., for the company which handles the sale of these trays to other confectioners. This company has applied for a patent on its design and has acquired food approval for its plastic trays.

One of Ziliban Corp.'s customers, Mr. Fred Hebert of the Hebert Candies in Shrewsbury, Mass. has conceived the novel idea of depositing his chocolate "geneva" pieces into transparent trays, turning them over, and presenting them for sale thus packaged instead of loose in paper cups. These are very attractive in appearance.

This development is of major potential importance in the fancy packaging field, and not just because of greatly increased packing efficiency. In all the various schemes that have been thought up for the mechanical packaging of fancy box chocolates, the greatest stumbling block to the fulfillment of this idea has always been the necessity of cupping the chocolates. It seems quite likely that some such scheme as described in this article will be the break-through that will make possible the mechanical packaging of fancy packages.

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Like other Du Pont K cellophanes, 600 K keeps its initial sparkle and clarity and offers the high level of protection associated with these quality films. Its rigidity in bag form helps prevent shaking down of product. And 600 K prints well . . . runs smoothly on conventional make-and-fill equipment. **Evaluate 600 K now!** You can't afford to overlook 600 K in your package planning on Halloween, Christmas and Easter items, especially for the popular large-size units.

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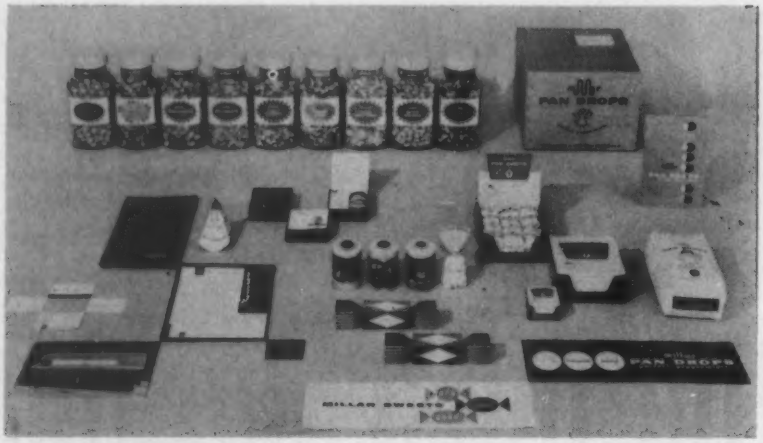


This is an array of all of the items which were redesigned to fit into the corporate identity established for John Millar & Sons by W. M. de Majo, design consultant.

millar

This is a sample box containing only one four ounce cellophane bag of Pan Drops. The regular box contains a dozen.

In over a hundred years of doing business John Millar & Sons of Edinburgh, Scotland, confectionery manufacturers, had a great number of products on the market which a consumer could not identify with the manufacturer. As with most companies, as Millar introduced new packages or products thought was given to the specific item and not to the over-all product picture.

Mr. William Roy, managing director of Millar, sought out W. M. deMajo, London design consultant, in 1954 and discussed with him his feeling of the need for a co-ordinated design program which would tie in all of the company's products and establish a corporate identity for the candy manufacturing firm.

Work began with packaging redesigning but soon extended to stationery, company forms, advertising posters and even to the lettering on delivery trucks. All of the changes revolved around the distinctive and ingenious Millar trademark which was devised by Mr. deMajo. It is the name "millar" in lower case with a series of links in a second color joining the letters to produce the effect of a capital "M".

These are the posters which are being used for advertising in public transportation facilities. The bottom poster makes use of the Pan Drops angel symbol as well as the standard color scheme established for this product.

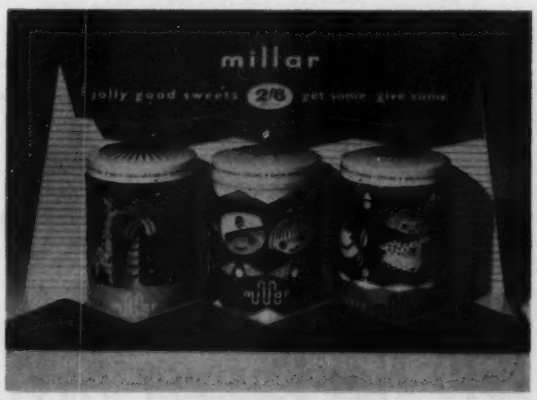
corporate identity established

The company produces a line of nine standard hard candies and a specialty peppermint, "Pan Drops". Part of the redesigning program saw the introduction of Pan Drops in 4 ounce cellophane bags. The mints, which were not previously prepackaged, have had a tremendous success in these bags. The cardboard container in which the bags of Pan Drops are packaged includes the new Millar logotype and a line drawing of an impish angel. This symbol is repeated on show cards and posters for the product along with the package color scheme.

Three of the hard candy items have been introduced in eight ounce tins. (The standard line is packaged in glass jars). These tins were designed with an eye to the export market and are intended mainly for gift items. The metal tins are re-usable and the designs are lithographed onto the metal in five to eight colors.

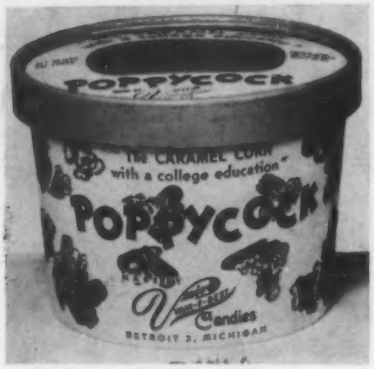
It has taken almost five years to complete the corporate design program for Millar. But at this time all the packages have been decided upon and most have been introduced into the market. The posters for buses have been complete. The delivery vans which carry screenprinted posters advertising one or more of the company's lines have proved so successful that they have been sent out to ride around empty just for publicity purposes. The Millar logotype has been incorporated into every phase of the company's operation. It appears on every piece of stationery used by the company from the director's calling card to order forms and invoices.

"The close cooperation between us and our consultant designer has helped us not only to impress on our customers and suppliers that we are anxious to make the best sweets possible, but to insure maximum impact and recognition value all the way from the factory right up to the point of sale. We needed someone who could not only design but advise us as well. Someone who could formulate a design policy. We have never looked back since then, but only forward." So comments Mr. William Roy on the ambitious undertaking of his progressive thinking company. And quite proudly he adds, "From the comments which we have received from many parts of the world, we know that our products not only taste good, but now also look good!"



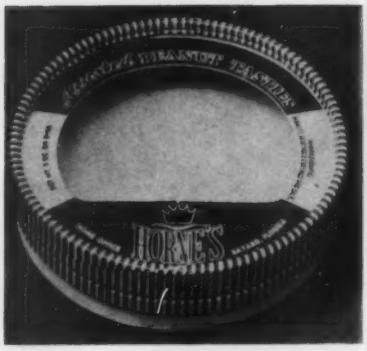
Three of the company's hard candy flavors are now being packaged in these gaily colored re-usable tins. They were devised with an eye to the export and gift markets.

New Packages



Vair Candy Company is distributing Poppycock caramel corn in this plastic coated container to department stores throughout the United States and Canada. This one pound package contains an inner cellophane bag which provides a double seal against moisture and temperature changes.

Clark Brothers Chewing Gum Company is furnishing retailers with this three-color corrugated display stand. The red, yellow and green stand is expected to aid merchandising by gaining more display space for Clark products in mass-retailing outlets.



Horne's Enterprises of Bayard, Florida, is selling their new product, Assorted Peanut Tasties, in this "platter-type" round container which is printed in red and brown with a candy-stripe cover-rim.

Beech-Nut Life Savers, Inc. is using these Hallowe'en overwraps this year.

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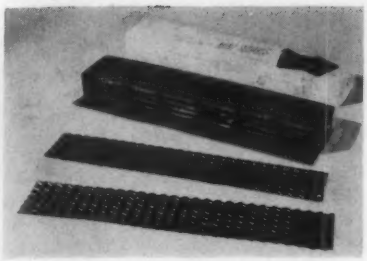
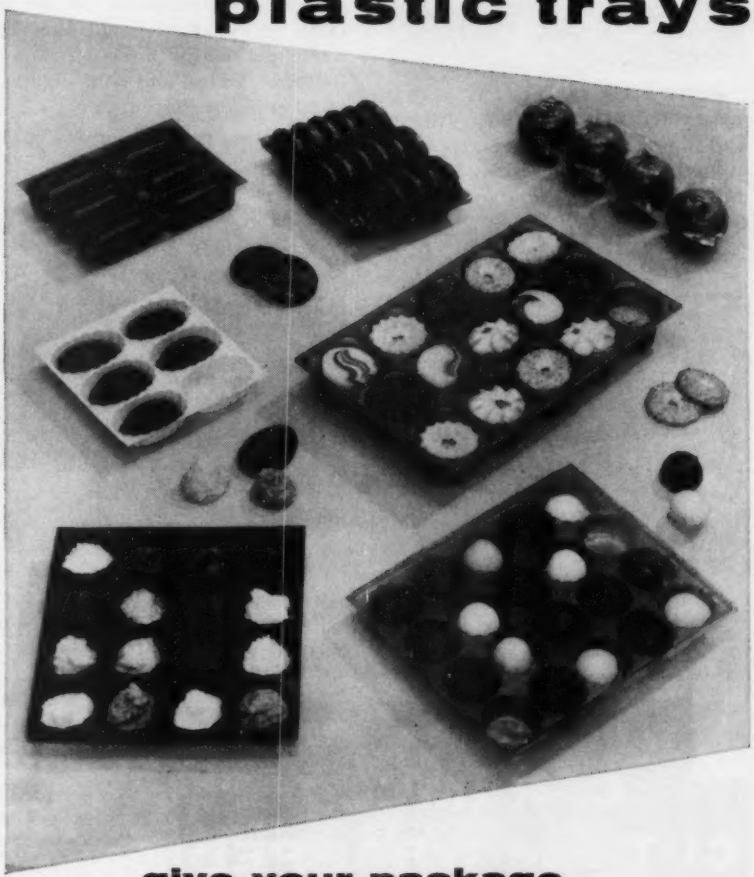


Terry Candy Company will introduce Terry's Mint Squares this Fall. The chocolate coated mints are packed in four layers separated by glassine liners which are chocolate colored and embossed to give a corrugated effect. The box is lithographed in gold, brown and green.

The Walter Baker Division of General Foods has a "family look" for their expanded line of chips which includes chocolate, caramel anl lemon flavors. The family image is achieved through a new continuous curve design, an enlarged "La Belle Chocolatiere", and a clear window area for product display.

Spangler Candy Co. will introduce a line of window boxes this Fall in three color packages overwrapped in cellophane. Ten items will be included in this line.

PAK-APEAL
plastic trays



give your package

SALES APPEAL

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PAK-APEAL is a new idea in packaging . . . consisting of a high quality, attractively designed, multiple unit plastic tray that is vacuum formed to fit your candy or cookie product perfectly. Each tray is also custom designed to fit snugly inside your present outside container.

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Boyer Brothers, Inc. has a new more colorful wrap for their "Mallo Cup" bar. The wrapper is printed in three colors on glassine. The bar in this new wrap is now in national distribution.

Necco is packaging nine Munchies blocks together to make a 10¢ bar. The wrapping is gold waxed foil and it is sealed with a red band on which the name of the bar appears in white letters. Munchies come packed in three-pack trays, 24-count boxes and 100 count in vend pack cartons.

Henry Heide, Inc. has wrapped their five cent marshmallow bar in special glassine wrappers for Hallowe'en. For display purposes the wrappers were done in two color combinations—one, a black scarecrow on an orange field, the other, an orange scarecrow on black.

Stephen F. Whitman & Sons has announced a new self-service line for the Fall. Nine new items will be retailed at 29¢ and three at 39¢. All will be packed as shown but different colors will be used for different products.

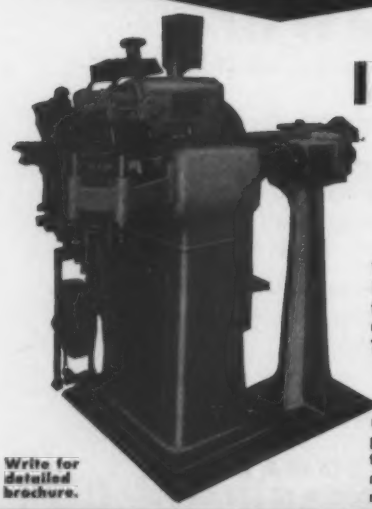
E. J. Brach has introduced candy-coated, milk chocolate "Jots" in 7/8 ounce eight color gravure printed packages in time for the Hallowe'en trade.

speed makes the difference!

CARAMELS CUT and WRAPPED EVERY MINUTE

450

WITH IDEAL HI-SPEED WRAPPING MACHINE



You can depend on Ideal to do the job faster, at less cost, with maximum efficiency. That's why Ideal Special Caramel Wrapping Equipment is the preferred equipment . . . and it saves personnel—two operators are all that are required for this automatic machine.

Write for detailed brochure.

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Territory: Pennsylvania excluding Philadelphia.

New package style for Peggy Kellogg

Sears recently changed the packaging of two items of its popular Peggy Kellogg brand of candies.

"Our sales of Peggy Kellogg Butter Peanut Brittle and Butter Peco Flakes were respectable, but fell short of our projected goal," Donald Landry, Sears' buyer of candy pointed out in discussing the repackaging program. "To borrow a phrase, we decided it was 'time for a change'."

Before deciding on a new package, however, Sears made comparison shoppings and analyzed different types of packaging in their merchandise testing and development laboratory. R. F. Sebrechts, candy technologist, utilized the Sears taste panel to determine the taste appeal of candy packed in several different containers. In addition, various packages were put through severe tests in the lab to ascertain their protective features. By combining laboratory findings with candy merchandising know-how, Sears came up with certain fundamental conclusions. These were:

1. Americans will recognize value in a product if that product itself is of quality and if the packaging of the item truly reflects the quality of its contents.

Vis Queen TRADE MARK

look what's behind the VISQUEEN brand name...

. . . to hold the line on costs.

for the candy packager

Will rising packaging costs force you to raise prices . . . or will you just absorb the loss—and cut into your profits?
You need do neither—when you package with VISQUEEN film. Here's why:
MORE UNIFORM thickness gives you MORE STRENGTH—hence you can use MORE ECONOMICAL gauges. Lower cost, MORE BODY, stiffness, smoother, wrinkle-free winding gives you MORE SPEED, reduced breakage and downtime, faster, better closing, MORE PRODUCTION per man minute in automatic packaging.

for the candy merchandiser

MORE SPARKLE and clarity show merchandise better. MORE STRENGTH reduces breakage, markdowns, soilage. MORE STABILITY with no aging, yellowing, clouding. MORE PRINTABLE for better design, identification.

With VISQUEEN film, one advantage adds another. To hold the line on costs: automatically—it's VISQUEEN film.

VisQueen
TRADE MARK

PLASTICS DIVISION
VISKING COMPANY *Division of* UNION CARBIDE *Corporation*
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In Canada: VISKING COMPANY DIVISION OF UNION CARBIDE CANADA LIMITED, Lindsay, Ontario.

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The new packages for Butter Peanut Brittle and Butter Peco Flakes lend themselves to very effective display.

2. A package, in the highly competitive candy field, must be distinctive to attract first-time buyers.
3. Only fresh, consistent quality will build steady, repeat trade.
4. A package, to be successful, must not only attract customers but do a full time job of protecting goodness.
5. A package, to be profitable in Sears' sprawling empire, must be sturdy enough to stand up in transit; adaptable to various counter or floor displays.

Taking all of these factors into consideration, Landry singled out the round, nesting tub manufactured by the Lily-Tulip Cup Corporation as the one container which would meet the multiple requirements for the particular items under review. Sears' own packaging department, with Lily packaging specialist and artists, devised a special print design which retained the Peggy Kellogg identifying tartan. This plaid now runs around the walls of the tub. Both the lettering and style of the product identification and Peggy Kellogg trademark remain unaltered.

"We introduced the Lily tub pack with a flexible pull disc lid nine months ago and are very pleased with the rate of sale," Landry says. "It is now selling considerably better than our previous flat candy box and many of our store managers report that repeat customers have commented upon its added freshness. They also say that the new item is easy to display and is a great attraction to customers because its size and shape is novel in the candy industry."

The heavy waxed finish on the double wrapped

tub and the close fitting disc lid does an exceptional job of flavor protection.

"When we first introduced the new packs, we promoted them at a reduced price to attract new customers as well as retain old ones who were familiar with the two Peggy Kellogg products in the flat box," Landry points out. "We now retail the tubs of Brittle and Peco Flakes at 69 cents per pound. Apparently, our customers recognize these as excellent values since sales have increased substantially over last year."

Peggy Kellogg Peanut Brittle and Butter Peco Flake candies are now merchandised in approximately 275 Sears Roebuck stores which have candy departments. A combination pack of Peggy Kellogg Peanut Brittle and Peco Flakes will be listed in the 1959 Christmas Catalog. Under the rules of the Sears Roebuck organization, the final decision as to whether or not to stock a particular item rests entirely with the local store manager. This local manager also has the deciding vote as to the amount of local advertising space devoted to any one Sears item in Sears' series of omnibus insertions.

"The high percentage of our stores now actively displaying and advertising the new tub pack of Peggy Kellogg candies is proof positive that our decision to make a good product even better through smart packaging is paying for itself in increased sales and customer satisfaction," Landry observes.

CANDY PACKAGING AND MARKETING

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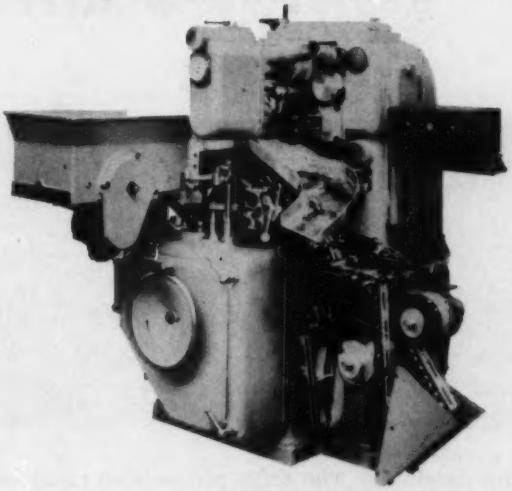
GD Supermatic



Model 2350 Super

For high speed, fully automatic twist wrapping of hard form, solid or filled candies

Speeds can be had up to 350 per minute according to type wrap.

SUPERMATIC PACKAGING CORP.
1460 Chestnut St. Hillside, New Jersey
BENEDICT R. MARFUGGI, Vice President — Sales Manager

How bundling fraction-of-case units with Avisco® cellophane can help your distributors

Any distributor who ships products to retail outlets recognizes bundling as a source of operational savings. He counts on bundles of anywhere from 3 to 24 packages of a kind (depending on the product, of course) to divide the contents of a shipping case into easy-to-handle units. This simplifies distribution.

Cellophane, paper wraps and boxes are all widely used for bundling. But that's where the similarity ends. For cellophane offers advantages no other packaging material can match.

Taking inventory and making up orders become easier with cellophane. Its true transparency permits product visibility from the top, bottom and 4 sides of the bundle. Result—instant identification, faster count and reduced shipping errors.

And, nothing compares with cellophane for complete protection against dust and moisture, and sealing *in* freshness. This means longer shelf life.

Distributors also prefer cellophane bundling because it wins favor with their retailers. Bundles can often be used as shelf displays without unwrapping until old stock is gone. This assures fresh, clean merchandise.

All these advantages mean savings in time and money for your own distribution organization and your wholesalers. They also give you and your wholesalers an extra selling tool.

But that's not all. In your own plant you can save bundling dollars with Avisco cellophane. It eliminates the need for printed or labeled boxes and paper overwraps; sails through your packaging machines more efficiently; seals easier and more securely—with heat alone. This heat sealing combined with cellophane's strength and rigidity result in a strong, secure, neatly formed bundle. What's more, cellophane substantially reduces packaging material inventory and the storage space it requires.

We offer a complete packaging service to assist you, and demonstrate how Avisco cellophane, plain or printed, will answer your bundling requirements better and more economically than any other material. Phone or write us for an appointment with our representative in your area or a selected cellophane converter specializing in your field.

Learn more about cellophane bundling. Send for this FREE handbook—"Cellophane Bundling . . . newest concept in distribution packaging."

AVISCO®

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The MANUFACTURING CONFECTIONER'S

Candy Clinic

The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Some samples represent a bona-fide purchase in the retail market. Other samples have been submitted by manufacturers desiring this impartial criticism of their candies, thus availing themselves of this valuable service to our subscribers. Any one of these samples may be yours. This series of frank criticisms on well-known branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of The MANUFACTURING CONFECTIONER.

Salted Nuts; Gums & Jellies

Code 10F9
Salted Nuts
4 ozs.—39¢

(Purchased in a chain drug store, Chicago, Ill.)

Sold in Bulk: Red folding box used.
Nuts: Assortment included blanched almonds, filberts, brazils, cashews, and peacans.
Roast: Good
Texture: Good
Salting: Good
Taste: Good
Quality of Nuts: Good
Remarks: The best salted nuts we have examined this year at this price.

Code 10C9
Chocolate, Marshmallows & Nuts
7 ozs.—79¢

(Purchased in a food shop, Chicago, Ill.)

Appearance of Package: Good
Container: One layer type, oblong shape. Blue foil top printed in red, white and gold. Cellulose wrapper.
Appearance of Box on Opening. Good
Piece: Piece is cut similar to a square piece of fudge. Chocolate top and bottom and marshmallow in the center.
Chocolate, Light: Good
Marshmallow: Good
Texture: Good
Nuts: Good
Taste: Good
Remarks: A good eating piece, slightly high priced. We have examined similar pieces at $1.00 the pound.

Code 10G9
Assorted Jellies
1 lb.—$1.50

(Purchased in a retail candy shop, Chicago, Ill.)

Sold in Bulk:
Jellies:
Colors: Good
Sugaring: Good
Texture: Good
Taste: Good
Remarks: A good eating jelly but very highly priced at $1.50 the pound. We have examined other jellies as good as these at from 75¢ to 85¢ the pound.

Code 10D9
Assorted Gums
13 ozs.—29¢

(Purchased in a chain drug store, Chicago, Ill.)

Appearance of Package: Fair
Container: Cellulose bag, round paper seal on top printed in red and white.
Gums:
Colors: Good
Finish: Fair
Texture: Good
Flavors: Good
Taste: Good
Remarks: Package is highly priced at 13 ozs. for 29¢. We have examined similar gums at 1 pound for 29¢.

Code 10E9
Burnt Peanuts
12 ozs.—29¢

(Purchased in a chain drug store, Chicago, Ill.)

Appearance of Package: Fair
Container: Cellulose bag, paper seal on top printed in red, white.
Peanuts:
Color: Good
Finish: Good
Jacket: Good
Roast on Peanuts: Good
Taste: Good
Remarks: A good eating burnt peanut. Suggest bag be printed to improve the appearance.

Code 10A9
Assorted Jellies
6 ozs.—70¢

(Purchased in a food shop, Chicago, Ill.)

Appearance of Package: Good
Container: Round white board box, printed in gold. Imprint of crown in colors.
Appearance of Box on Opening: Good
Number of Pieces: 19

Candy Clinic Schedule For the Year

JANUARY—Holiday Packages; Hard Candies
FEBRUARY—Chewy Candies; Caramels; Brittles
MARCH—Assorted Chocolates up to $1.15
APRIL—$1.20 and up Chocolates; Chocolate Bars
MAY—Easter Candies; Cordial Cherries
JUNE—Marshmallows; Fudge
AUGUST—Summer Candies
SEPTEMBER—Uncoated & Summer Coated Bars
OCTOBER—Salted Nuts; Gums & Jellies
NOVEMBER—Panned Goods; 1¢ Pieces
DECEMBER—Best Packages and Items of Each Type Considered During the Year.

Colors: Good
Molding: Good. Molds are fruit shapes.
Finish, Glace: Good
Texture: Good
Flavors: Good
Remarks: Very good eating jellies but very highly priced. Suggest a cellulose wrapper be used as top of box was soiled. Similar jellies are sold in the U.S.A. at 89¢ to $1.00 the pound.

Code 10H9
Jelly Beans
1 lb.–29¢

(Purchased in a chain department store, Chicago, Ill.)
Appearance of Package: Good
Container: Cellulose bag printed in red and yellow.
Jelly Beans: Orange and black
Colors: Good
Finish: Good
Panning: Good
Texture: Good
Flavors: Good
Taste: Good
Remarks: Good eating jelly beans; should be a good seller at 29¢ the pound. Suggest at least two colors be added.

Code 10K9
Salted Toasted Peanuts
9½ ozs.–85¢

(Purchased in a chain food store, Chicago, Ill.)
Appearance of Package: Good
Container: Glass jar, screw cap, vacuum packed. Red cap printed in white. Red paper label on jar printed in white and blue.
Peanuts: These peanuts are not roasted in any type of fat or oil.
Roast: Good
Salting: Good
Texture: Good
Taste: Very good
Remarks: A very fine eating salted peanut. They are very different from the regular salted peanut. They should be good sellers.

Code 10L9
Assorted Jellies
12 ozs.–89¢

(Purchased in a retail candy shop, Chicago, Ill.)
Appearance of Package: See remarks.
Container: Long, oblong box, top printed in dark brown and yellow. Name in brown in white panel.
Appearance of Box on Opening: Good
Number of pieces: 24
Jellies: Jellies are finger shape, each in a cellulose wrapper.
Colors: Good
Sugaring: Good
Texture: Good
Flavors: Good
Remarks: Suggest box be wrapped in cellulose as top of box was badly soiled. Good eating jellies but slightly high priced.

Code 10I9
Assorted Spiced Gums
5 ozs.–13¢

(Purchased in a chain drug store, Chicago, Ill.)
Appearance of Package: Good
Container: Folding box printed in red, blue and yellow. Imprint of gums in colors.
Gums:
Colors: Good
Texture: Good
Finish: Fair
Flavors: Fair
Remarks: Suggest a better grade of flavors be used.

STANcase STAINLESS STEEL EQUIPMENT

STAINLESS STEEL DRUMS

MODEL 30--30 GAL.
MODEL 55--55 GAL.
(Covers available)

ECONOMY EQUIPMENT

RUGGEDLY CONSTRUCTED FOR LIFE TIME WEAR.
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Manufactured by
The Standard Casing Co., Inc.
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Drying of cream Easter eggs, fudge, marshmallows, cast and rolled creams, jellies, coconut work and grained nougat is *easy* to retard when you use NULOMOLINE.

It's the *Levulose* in NULOMOLINE that does the job, and also checks graining of caramels, taffy kisses, chewing nougat and other chewing candies.

The high *Levulose* content balances your candy formulas and *protects* and *preserves* both appearance and taste for longer periods. NULOMOLINE has proven its value through the years as the pioneer standardized invert sugar since 1909; and NULOMOLINE technical service is at your service.

Order NULOMOLINE now . . . direct or through your jobber.

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NULOMOLINE®
THE PIONEER STANDARDIZED INVERT SUGAR

Code 10B9
Assorted Licorice
¼ lb.—10¢

(Purchased in a chain drug store, Chicago, Ill.)

Appearance of Package: Good for this priced confection.
Container: Folding box printed in colors. Overall imprint of pieces in colors. Cellulose wrapper.
Candies:
Colors: Good
Texture: Good
Flavors: Fair
Licorice: See remarks
Remarks: Confection is entirely too sweet. Suggest more licorice be used to improve the flavor.

Code 10J9
Assorted Salted Nuts
1 lb.—$1.49

(Purchased in a fancy food store, Chicago, Ill.)

Appearance of Package: Fair
Container: Cellulose bag, paper clip on top, yellow printed in red, white and blue.
Assortment: Mostly all cashews and about one half broken pieces. Few brazils, very few almonds, pecans and filberts. No peanuts.
Roast: Good
Salting: Good
Texture: Good
Taste: Good
Remarks: Good eating salted nuts. Suggest bag be printed to improve the appearance of the package.

Code 10M9
Coconut Slice
1⅝ ozs.—5¢

(Purchased in a drug store, Oak Park, Ill.)

Appearance of Bar: Good
Size: Good
Wrapper: Cellulose wrapper printed in brown and white.
Slice: Slice has three colors: yellow, white and red.
Colors: Good
Texture: Good
Coconut: Good
Taste: Good
Remarks: One of the best coconut bars of this type we have examined this year.

Code 10N9
Chocolate Fudge
1 lb.—$1.00

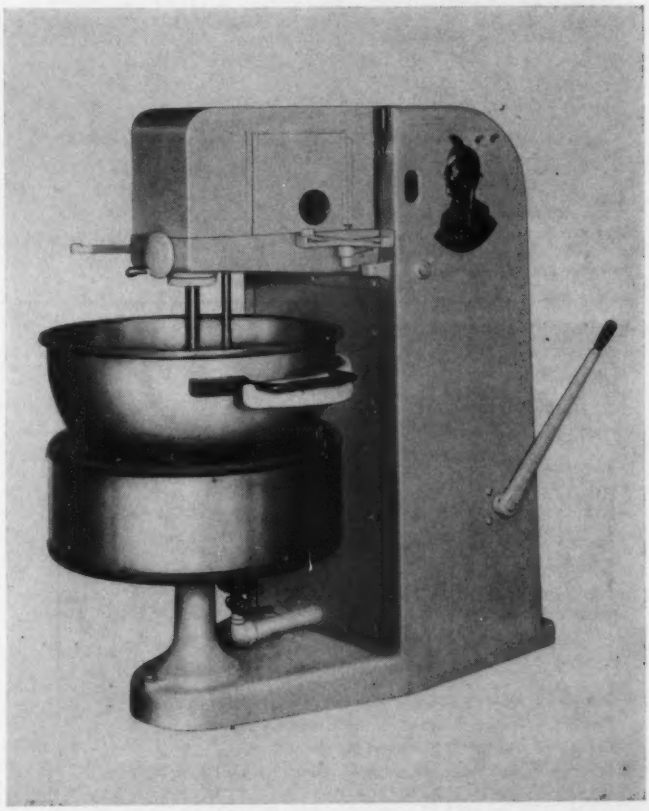
(Purchased in a retail candy shop, Milwaukee, Wis.)

Sold in Bulk:
Fudge: Fudge is cut in squares and is wrapped in cellulose.
Color: Good
Texture: Good
Taste: See remarks
Remarks: Suggest a good liquor chocolate be used to improve the flavor. Fudge lacked a good chocolate flavor.

SAVAGE LATEST FIRE MIXER

MODEL S-48

Thermostatic Gas Control—Variable Speed



The Savage Latest Fire Mixer, Model S-48, is Streamlined and Sanitary and has many new features and conveniences:

Automatic Temperature Control
Variable Speed from 30 to 60 RPM
Break-back within floor space 32" x 48"
Aluminum Base and Body Castings
Atmospheric Gas Furnace with Stainless shell
Removable Agitator, single or double action
Stainless Cream Can and Stainless Drip Pan
Copper Kettle 24" diameter 12½" deep or 16" deep

You can save labor and obtain uniform batches by setting the thermostat for degree cook desired. It cooks and mixes batches of caramel, peanut brittle, peanut candies, fudge, nougat, gum work, and with double action agitator is ideal for coconut candies and heavy batches.

Your inquiry invited

SAVAGE BROTHERS COMPANY

2638 Gladys Ave. Chicago 12, Ill.

Latini Die Pop Machine with Wrapping Attachment

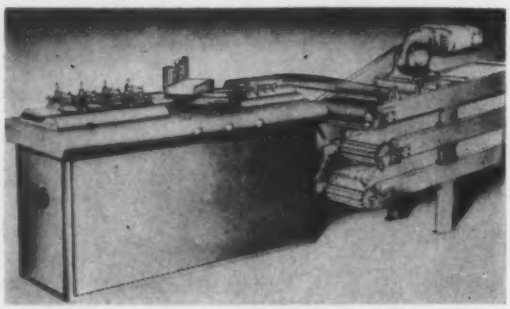
225 Pops formed and wrapped per minute.
No handling between forming and wrapping.
Eliminates breakage and labor.

There's profit in pops when you use the Latini

Conservatively, 100 boxes per hour* of 120 count

A second Latini unit can be operated by the same person

*based on a 50-minute hour



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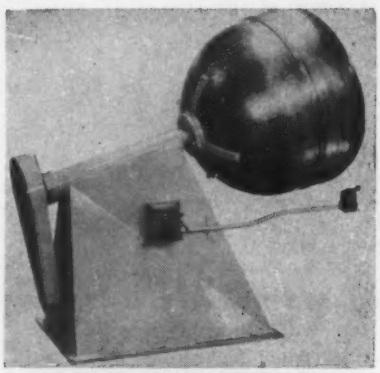
(Patent Pending)

Integrated Sizer & Twister with electronic speed control.
Flexible — Diameters for ¼" to 1½"; length from 4" to 16".
Productive — up to 1500 inches per minute.
Sanitary — Stainless steel finish — Candy always in sight.



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Bowl shape increases charges up to 15%
New—smaller stand with direct-motor drive
Precision-built for long service life

THE HOFFMAN CLUSTER MACHINE

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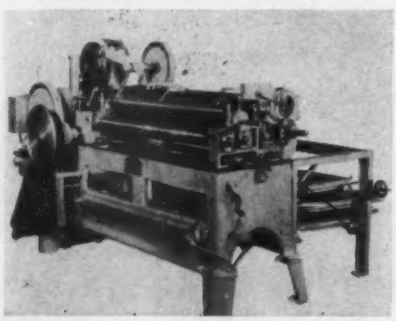
- 2 more clusters per row
- All stainless steel construction
- Available in 16-24-32 and 40 inch widths.

HOHBERGER BALL MACHINE



Only one operator required to produce up to 1,200 lbs. per hour.
You can produce:
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Sunbeam Starlights, stripes brought down to center without expensive inlay.

Representative: *John Sheffman, Inc.*

152 West 42 Street **New York 36, N.Y.**

A candyman's positive approach to dental caries

By Justin J. Alikonis, Director of Research
Paul F. Beich Company

While sugar in many quarters is being denounced as chief offender against dental health, many authorities in the field of nutrition and dentistry are of the opinion that the evidence against sugar and other sweets and candy is not justified on the scientific evidence available.

After all the research, tooth decay is probably our most common disorder. It affects 95 percent of our civilization, and to this day we do not know what the cause is, and unfortunately, we do not know how to prevent tooth decay. Some authorities say it is diet; others say no. Some believe that the cause is in our bodies; others believe the cause is something on the outside of the teeth that causes the germs of decay to multiply. One thing we do know is that Nature gives us two sets of teeth. My discussion here is to help you and I to keep from getting the third set of teeth which the dentist can make for you.

It is true that primitive people have not had the problem of dental caries which we have in our civilized world. The only places today that you could go to assure yourself of a diet that would keep you from having dental caries would be to live with the primitive Eskimos, whose diet is mostly meat and fish, and the Massi tribes in Africa, who live entirely on milk and cow's blood, but the road to these areas are only for tourists; and the Eskimos who have taken on civilized foods are having dental caries, and the Massi, due to overpopulation, can no longer stick to their diet of milk and cow's blood, and they, too, are being troubled by dental caries. One other way to be free of dental caries is to lay down and die because teeth do not continue to decay after a person dies. They are the most stable remains of the human skeleton. Tissues and bones will disintegrate. Unless there is terrific acid errosion the teeth will remain.

Most of you during your lifetime have seen the theories about tooth decay change as regularly as a woman's fashions. It seems like something new is proposed to reduce or eliminate tooth decay, such as vitamins, calcium, phosphorus, mineral balance, chewing gum, antibiotics, ammonium, urea, mouth wash, dentrifice, tooth brushing, and flossing, alkaline ash diets, detergent diets, tough-to-chew foods, protein diets, and the emotionally

EDITORS NOTE This paper was delivered before the Bloomington Exchange Club, February 11, 1959. The occasion was National Dental Health Week, and Mr. Alikonis siezed this opportunity to tell a side of the dental health story that is very seldom heard in lay circles.

We admire his courage, and present the paper here for the benefit of others who may have a similar opportunity in their community.

stable life. Most of you have tried or are still trying one of these methods. Dental research has been discouraging not only to the laymen but to the dental profession itself. Even the American Dental Association Advisory Committee on Research had to admit that although they know a lot about teeth they don't know why they go bad.

The latest hopeful sign is the fluoridation of water, and the overall picture has been very good, and it has been shown to cut down dental caries up to 60 percent in children whose teeth have not been formed. Unfortunately, for adults this gives very little hope. Although fluoridation has also shown up some very exasperating facts, there is definite proof that children's teeth which have been protected by fluoridated drinking water, a difference exists in the effect not only upon children in the same town but upon teeth in the same head. It has also been found that children who get the most benefit from fluorine seem to have parents with better than average teeth, so it seems that if you inherit bad teeth fluorine is not the answer.

Many foods contain natural fluorine. Tea, for example, is considered one of the few foods naturally high in fluorine content, yet the English who drink tea in huge quantities have probably the worst teeth of any people in the world. They have found cities in Italy where the water is very low in fluorine where they have good teeth, and yet in New Zealand they have cities where the fluorine is high where they have many caries. Therefore, it is no wonder that many dental experts (with or without their own ideas to peddle) feel that fluorine may not be the working solution to the caries problem. Therefore, when the dental profession proceeds cautiously on any measure, many of the food faddists take this as a point of weakness and spread a lot of propaganda.

It is always a marvel to me that these food faddists who do no work of their own, contribute nothing to the research, yet have all the answers to the tooth decay problem. This reminds me very much of the fellow up in the stands during a baseball game, who after drinking a half dozen bottles of beer and is about a thousand yards away from the scene of action of a baseball play, and yet he hollers out protesting the umpire's ruling on the play, who is only two feet away from the action. In my book, I will take the decision of the umpire, and I think we have to decide whether we are going to accept ballyhoo or the work of dedicated scientists in trying to cut down on dental caries.

There are many schools of thought about the cause and cures of caries. There is the acid decay school that feel that bacteria in the mouth thrive on carbohydrates causing acids to dissolve the enamel in the tooth, and thus causing holes, causing dental caries. Now it is true that if you place an extracted tooth in a test tube almost any fruit juice will melt the tooth quickly, but that simply does not happen when the tooth is in your mouth. If it did we all would have had false teeth long ago. The tooth is living matter. The living tooth resists acids. If acids caused cavities, why isn't the most damage always on the enamel surface?

There is another school who feels that the enamel is not 100 percent enamel, that there are threads of organic material running through it, and that some type of hardening of the outside of the tooth, such as zinc chloride, or silver nitrate, or some other substance, would reduce dental caries. Yet there is the mystery that there are many teeth that are completely immune to decay which do not have the benefit of any treatment at all. It is still an unsolved mystery—no one knows the answer.

Then there is the organic school who feel that caries is simply a common disease like a cold. It believes your resistance to the tooth decay fails for one of several reasons, physiological, psychological, or dietary. This school feels that your teeth deteriorate for any of these reasons. Saliva is one of the factors suspicioned by nutritionists in this group. Both food and emotions are known to affect the composition and flow of saliva. Do people with a good flow of saliva have less tooth decay than those whose mouths are dry? One leading dental researcher believes it does.

Then there is the primitive food school. In other words, it is the store food that gives us store teeth. Certainly there are many primitive people who have very good teeth, but I am sure that we all can see many other differences between civilized and primitive man than his diet alone. No one has been able to identify a single common denominator in primitive diets that could act for good teeth. Even in our own United States many of the southern states have a very poor diet high in carbohydrates, such as cornmeal and fat, and yet they have very good teeth.

Then there is the school that feels the wear and tear or the chew resistance is the secret of good teeth. They feel that our soft cooked foods don't give our teeth the chance to gnaw, grind and chop which the primitive diets provide. Yet I think it would be difficult to find a Bloomingtonian who does not chew more and use coarser foods than the South Sea Islanders or the Eskimos, whose meat is usually soft fish and yet they have 90 percent freedom from dental caries.

If we are to live in a civilized society we must see to it that our children have the proper nutrients (approximately sixty) that are necessary to maintain the body in a healthy condition and to build teeth on a very good foundation. Second, we must see that children have access to fluoridated water during the formative years when the tooth is formed (that being up to 12 years of age). Third, we must practice very good oral hygiene; maintain the proper diet to keep the living tooth in a living healthy condition; we must not allow sweets, starches, and carbohydrates to replace essential nutritive food products which we need throughout our life history; and we should visit our dentist at least twice a year because he is a member of various dental associations that will give you up-to-the-minute findings on research in the prevention and care of dental caries.

It is bad enough for misinformation to be spread by the laymen, but when members of a profession disseminate untruths or half truths, it confuses many intelligent people. There is a reason for tooth decay. It probably will not be a simple idea or truth, and some day through research this truth will come to light, and the sooner the better, because 95 percent of our population is suffering from the pains and aches of tooth decay with all its implications.

"Relatively few American children reach age 12 without needing tooth fillings," says Dr. Maury Massler of the University of Illinois College of Dentistry. "However, nearly all children in southern Italy reach this same age caries-free. This may be partly explained by the fact that children elsewhere have different eating habits. They end each meal with fruit, sometimes called nature's toothbrush, or in the case of the Mohammedan children, they wash their mouths with water. Also, only American children are allowed to eat sweets between meals," adds Dr. Massler. He is of the opinion that if American mothers would not allow their children to have cookies and candy between meals it would save their children's teeth and also their appetites for meals."

One of the latest reports has come from a Joint Committee of the American Academy of Pediatrics and the American Society of Dentistry for Children entitled "Dental Caries and a Consideration of the Role of Diet in Prevention." This appeared in the February 1959 issue of Pediatrics. A reprint can be obtained by writing the American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois. The following quotes are from this report:

"The foundation for dental health is established early in life. The greatest cause of dental disease is caries which, in turn, is largely a disease of the first two decades of life."

"Certain conditions are essential for development of dental caries: 1) a caries-susceptible individual or teeth; 2) the presence of acid-producing bacteria which are capable of producing a sufficient concentration of decalcifying acids; 3) the presence of a substrate of orally fermentable carbohydrate; 4) bacterial plaque or accumulations which will concentrate the action of acid at caries-susceptible areas of the teeth."

"In practice, the best proven way of increasing the resistance of the teeth and preventing dental caries is by the addition of fluoride to drinking water and the topical application of fluoride. Although other methods of prevention on a mass scale have been attempted in recent years, none has proven effective."

"No confirmed deleterious effects have been observed in the United States." "Studies of children who have drunk artificially-fluoridated water for periods up to 10 years have failed to disclose any evidence of adverse effects on growth, or general health and well-being, or any changes, in skeletal density or rate of skeletal maturation."

"There is increasing evidence that between-meal eating and the frequency of eating are related to

. . . and don't you forget, Henry, to bring home some Brazil Nut Candies.

Kernel Nut Of Brazil Says:

Not all husbands are perfect. Some even forget occasionally to bring home delicious Brazil Nut Candies for friend wife unless reminded to do so. Fortunately many, many husbands are more thoughtful. Having a special preference themselves for candies made extra-tempting with fresh, crunchy Brazils it's easy for them to remember to treat the family frequently to candies given added goodness this popular Brazil Nut way. It's true. Brazil Nuts do endow even your finest candies with lots more eye-and-taste appeal. That's why you can depend on 'em to speed up sales, boost profits. Suggestion: Besides putting Brazil Nuts in your present candy formula, why not bring out a new Brazil Nut Candy Bar of your own? It's sure to make you money.

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FREE! Today, fill out the coupon on this page and send to us for your complimentary copy of our handsomely-illustrated, 72-page Brazil Nut Candy Formula Book. That noted authority, Mr. Jas. A. King, wrote it especially to assist you in making money. Suggests 81 different, practical ways to use Brazil Nuts to increase sales and profits.

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Brazil Nut Association, Dept. MA-7
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Please send me FREE your profit-building, 72-page Brazil Nut Candy Formula Book.

Company .....
Street .....
City .....Zone .....State.....
By .....

the dental caries experience of children. Gustafsson et al. conducted a well-controlled study of dental caries and observed that a group of patients who received a diet high in fat and very low in carbohydrate, and practically free from sugar, exhibited low caries activity. When refined sugar was added to the diet in the form of mealtime supplement, there was still little caries activity. In the same study, when caramels were given between meals, there was a significant increase in the numbers of new carious lesions. It was concluded from these studies that dental caries activity could be increased by the consumption of sugar, if the sugar consumed was in a form easily retained on the tooth surface. The more frequent the latter form of sugar was consumed between meals, the greater was the tendency for an increase in dental caries."

"Mack studies a group of institutionalized children who were receiving an adequate diet. These children received sugar at mealtime only. She studied the effect of further additions of carbohydrate to the diet in the form of candy. This did not significantly increase dental caries activity, but the children did not receive candy between meals and they were encouraged to brush their teeth after meals."

"Although a low-carbohydrate diet may provide sufficient nutrients for the average individual, it is not consistent with contemporary eating habits in children, may cause ketosis, and is extremely difficult to maintain. Furthermore, the necessity of a diet which restricts not only simple sugars but also complex carbohydrate is not clear."

"It is worth remembering that special dietary programs have other implications in childhood. If a child is compelled to eat a diet that is different from that of the other children, even in his own home, and, if the diet is different from the school meal, other children will make life miserable for the child in question. The result may be damaging to the sense of security. This factor should be carefully considered in relation to whatever advantages may be obtained by special diets. It is difficult, because of ready availability, to completely withhold candy from children. It would seem better to provide some candy in the home, to be eaten at the end of a meal, rather than to deny it completely. Furthermore, highly concentrated sources of refined sugar, such as candy, given after meals are apparently less apt to produce caries than if given between meals."

"Adequate dental supervision by a dentist seems to be an accepted health practice in most American communities, and there is little question that dental supervision can play a part in caries prevention."

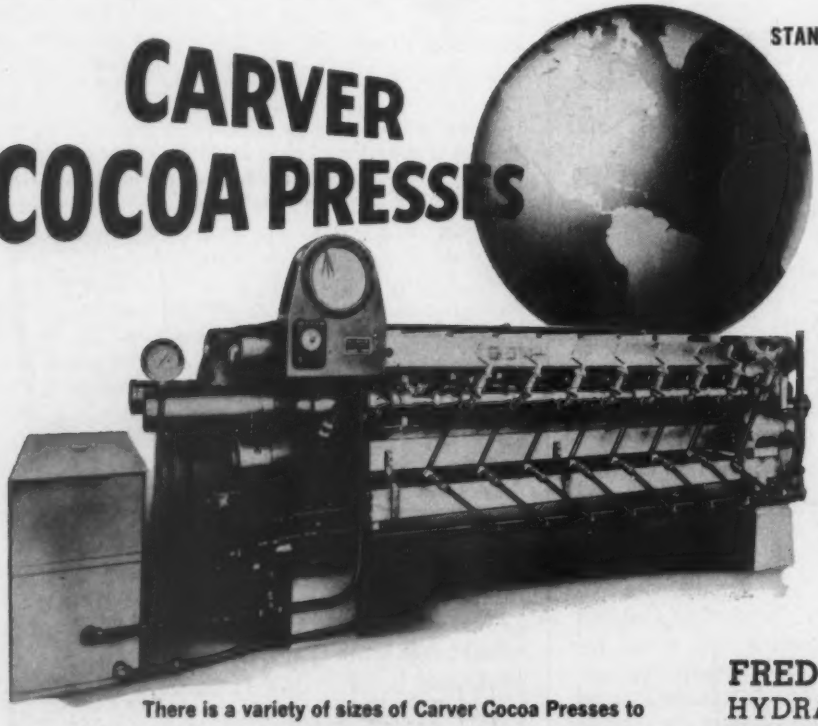
"The pediatrician can recommend that toothbrushing start at about 24 months of age and also that dental visits begin at between 24 and 30 months of age."

SUMMARY

"Dental caries is primarily a disease of child-

STANDARD THROUGHOUT THE WORLD

CARVER COCOA PRESSES



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hood and appears to be at least in part preventable."

"Present knowledge indicates that the most effective prevention available is the consumption of fluoridated drinking water containing a concentration of fluoride appropriate to the environmental temperature. Reduction of the intake of refined sugar both in amount and frequency has a beneficial effect on caries control. The prescription of diets essentially devoid of all sugars should be used to stem the progression of rampant caries. That this regimen would be as effective when complex carbohydrates are permitted and only refined sugar prohibited has been indicated by some studies. However, any highly restricted program must be considered therapeutic and not preventive and should be under pediatric supervision."

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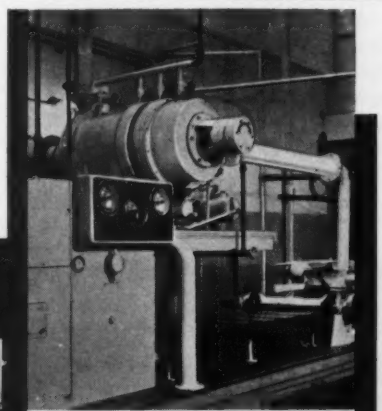
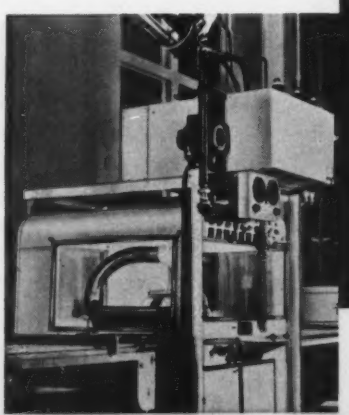
Type TA XIII

Capacities up to 1100 lbs/h. The picture below shows the tempering machine installed on a Coater.





Type TA III

Capacities up to 4000 lbs/h. The tempering machine shown above is installed on a fully automatic Moulding Installation.

Fully automatic Tempering Machines Types TA III & TA XIII

Ideal design of cooling, mixing, heating and stabilizing sections to obtain a well-tempered chocolate of the monomolecular crystallization giving a glossy product of long shelf life.

Economic operation with low water consumption.

No attention required when set for continuous operation.

Easy installation immediately where tempering of chocolate is required, avoiding long pipe lines and consequent interference in the tempering obtained.

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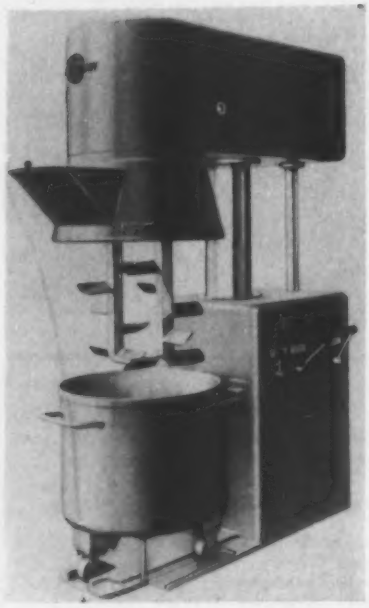
New Products



A planetary mixing and kneading machine has been introduced which will process a wide range of highly fluid, viscous or pasty materials. The mixer is available with swivel, tilting, runout or stationary tanks in capacities from 1 to 350 gallons. The machine has a new kind of tank speed arresting mechanism. An unusually efficient planetary action is obtained by equipping the mixing spindles with helically arranged vanes which move along the rank wall while rotating at high speed around their own axes. This mixing mechanism can be raised and lowered automatically.

For further information write: J. M. Lehmann, Inc., 550 New York Ave., Lyndhurst, N. J.

A roll feed has been developed for a semi-automatic wrapping machine. This machine which wraps irregular shape packages such as jars and heart boxes, formerly required the use of film in sheet form. This roll feed attachment which fits on all previous models of this equipment provides film savings of 15% and in addition increases the speed of the wrap.

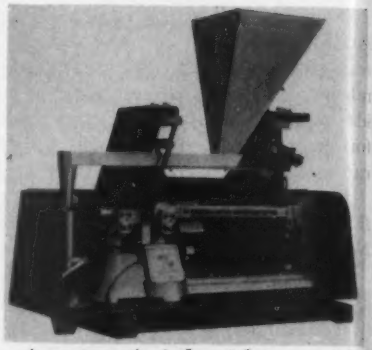
For further information write: James C. Hale & Company, 282 Seventh St., San Francisco, Calif.

Custom designed, vacuum formed plastic trays are now available for packaging candies. Different colors of rigid plastic film are vacuum formed into trays of individual pockets especially designed to fit various sizes and shapes of candies. Use of the trays permits fully automated packaging and filling operations.

For further information write: National Packaging Corp., Fort Wayne, Indiana.

A folder is available describing a new air-operated pump which continues to operate while partially disassembled for cleaning or maintenance.

For further information write: The Crossley Machine Co., 308 Monmouth St., Trenton 9, N. J.



An automatic, industrial type weighing unit for handling small quantities of dry materials has been developed. The unit consists of a supply hopper, an electric vibratory feeder, a weigh bucket mounted on the weigh beam and a small air cylinder for operating the bucket gate. The range is one gram to 100 grams with speeds of up to 15 weighings per minute. Accuracy is within plus or minus 1/10 of a gram of most materials. All contact parts are stainless steel, controls are mounted in a remote control box and the unit is fully automatic so that it can be synchronized with other machines.

For further information write: Mini-Weigh, Glengarry Processes, Inc., Bay Shore, New York.

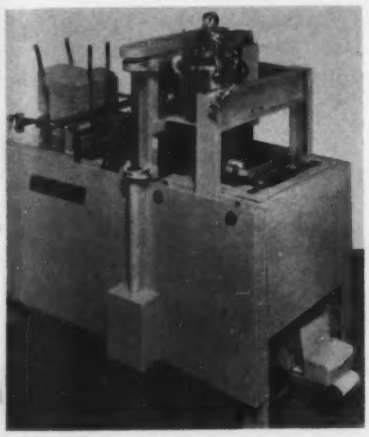
A bulletin is available discussing the method of operation and advantages of continuous, automatic gaging of specific gravity or percent solids with gamma radiation density control systems.

For further information write: The Ohmart Corp., 2236 Bogen St., Cincinnati 22, Ohio.

CAN" TEAM FOR COCOA BEANS
Burns Raw Cocoa Cleaners. Two stage cleaners that remove both light and heavy trash—protecting flavor and fineness. Designed to keep breakage to a minimum.
Burns Continuous Roasters. The soundest means of automating roasting and cooling, avoids scorching, produces a uniform product. Quick-low heat roasting assures less fat in shell, permitting better cracking.
Burns Cracker and Fanners. Cracker design assures minimum of fines. Horizontal sieving and cascade nib slides combine to produce best possible separation of nib and shell.
BURNS
AND SONS, INC.
ENGINEERS
800 West 43rd Street • New York 36, N. Y.

A portfolio of descriptive literature, samples and price lists of polystyrene sheet and film has just been released. The material is said to be ideal for overwraps, bags, pouches, formed containers and envelope and carton windows.

For further information write: Oke R. Henstrand, Plax Corp., P. O. Box No. 1019, Hartford, Conn.

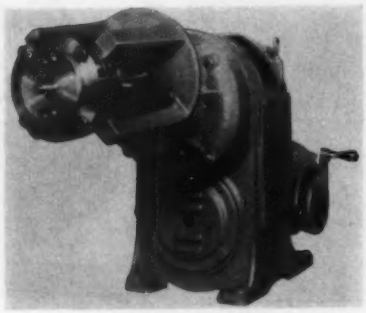


A machine is available which converts low cost blanks into trays and cartons at speeds up to 70 per minute. It is specially designed to fit the need for economical, moderate speed equipment. It can be automatically converted to handle a wide range of carton and tray sizes. One of its outstanding features is a closed glue system which eliminates clean-up time.

For further information write: Peters Machinery Co., 4700 Ravenswood Avenue, Chicago 40, Ill.

Continuous determination of sugars, invert sugars, sucrose and total reducing sugars has been developed. The method employed is the reduction of alkaline potassium ferricyanide to postassium ferrocyanide using potassium cyanide as a catalyst. Flow charts are available showing how each step of the analysis has been automated integrating the separate steps into a continuous flow and recording the results continuously.

For further information write: Technicon Controls, Inc., Chauncey, New York.



A laboratory model continuous mixer has been developed which will fill the need for a small model for use in pilot plant work and in research laboratories. The mixer is available as an integral unit with direct connected variable speed drive or as a separate unit for belt drive.

For further information write: The E. T. Oakes Corp., Commack Road, Islip, L. I., New York.

A waxed paper tub in a stock design is now available for candy packaging. Three color combinations are available in tub sizes 8, 12, 16 and 32 ounces, 5 and 10 pounds. Paper and plastic lids can be used for all tub sizes and metal lids are made for sizes from 8 ounce to 32 ounce.

For further information write: Paper Container Division, Continental Can Co., 349 Oraton Street, Newark, N. J.

A label printer has been developed which eliminates the need for stockpiling labels for each product. The printer overprints product name, ingredients, weight and inspection stamp on labels which are pre-printed with basic unchanging information. The machine rewinds labels into rolls ready for weighing and wrapping machines after printing. Production speeds from 100 to 125 labels per minute can be obtained on pressure-sensitive, heat seal, moisture sealing or non-sealing stock.

For further information write: Markem Machine Co., Food Division, Keene 57, New Hampshire.

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PLETE NUT EQUIPMENT — PLUS SERVICE
There's a Burns machine—a better machine—for every stage in nut processing from raw nut to finished product.
Batch Roasters, Continuous Roasters, Split Nut Blanchers, Butter Mills and latest addition to the Burns line, the new Fry-O-Matic, an oil nut roaster that roasts, salts, cools and glazes any type of nut and does it continuously, automatically and dependably.
Burns equipment plus Burns engineering service is famous throughout the business. Call on Burns—design and installation for individual needs is our specialty.
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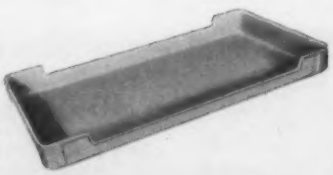
DUST-PROOF STOCK BOX

Here's real help for candy makers at low cost. The new, dust-proof Toteline Stock Box, made of reinforced fiber glass, has smooth, non-porous surfaces, rounded corners. It's easy to stack . . . nests compactly without lid. Unlike wood, it can't splinter. There's no maintenance.

Toteline Stock Boxes, and the Sanitary Tray for transporting and drying candy, pictured below, cost surprisingly little. They're practically indestructible and cleaning's a cinch . . . just dip in hot water.

End your sanitation problems now. Start today by returning the coupon below for further information.



by TOTELINE

MOLDED FIBER GLASS TRAY CO., LINESVILLE, PA.
OFFICES IN PRINCIPAL CITIES AND CANADA
World's Largest Producer of Reinforced Plastic Trays and Tote Boxes
Return the attached coupon with your letterhead for more information

Please tell me more about Toteline Products and how they solve material handling problems.
☐ I'm interested in the dust-proof Stock Box ☐ I'm interested in the Sanitary Tray

Name _____ Title _____
Company _____
Address _____ City _____

Order this beautiful Almond Candy Poster

FULL COLOR candy posters like this (14" wide, 11" deep) are yours free for the asking (in limited quantities). Designed for use with counter and window displays, and as wall posters. Posters have space for brand name imprinting*, or may be used without brand name imprint. Contact your Exchange representative or write, stating quantity needed to California Almond Growers Exchange.

...*available free*

to help you make the most of Fall's big Almond promotion

This fall, California Almond Growers are boosting almonds and almond candies with double-spread color advertising in leading women's magazines. You'll want to tie in by featuring popular, eye-appealing almond candies, especially during pre-holiday weeks. Arrange to have your outlets feature almond candies, too. Remember, there's never been a better time to make and feature almond items. This year's colossal almond crop means that more than ever before . . . *adding almonds is a low cost way of adding premium quality!*

BLUE DIAMOND ALMONDS

California Almond Growers Exchange • P.O. Box 1768 • Sacramento 8, California
Sales Office: 100 Hudson Street, New York 13

*The Exchange will have your brand name imprinted for you at a charge of $7.50 per thousand posters. Send type sample it will be matched as closely as possible.

Holiday sales stimulants

Candy sells exceptionally well at Yuletide, especially if the retail confectioner exercises creativity in producing novel merchandising schemes. Here are a group of sales stimulating devices which have worked well for others and quite possibly can help make your Christmas a profitable one.

Booras Candy of Watertown, New York decided last year that plain old St. Nick by himself was just a bit out of date. So they did something about it. That something was a "double feature" version of Kris Kringle.

On the Booras premises, Mr. and *Mrs.* Santa functioned as a smoothly integrated team. They dispensed candy to the young guests but didn't forget the parents! Each parent who chaperoned a child or children to the Booras establishment received as a reward a credit memo worth 25 cents on any candy purchase totaling $1.50 or better, provided purchases were made prior to Christmas. Mr. and Mrs. Santa caused a minor sensation in Watertown proved by the fact that the local newspaper did a feature story on them!

The Santas appeared only a few hours daily during a ten day period prior to Christmas. Booras offered Santa and Mrs. Santa candy specials only during the hours the Santas were at the store.

Candy-Land in Syracuse, New York felt that the biggest headache associated with Christmas was the problem of gift wrapping. Harassed housewives and busy businessmen alike dread this necessary but often tedious chore.

Candy-Land established its own gift-wrapping bar, open for business around December 5th. This confectioner hired a housewife only too willing to earn a little additional Christmas money in exchange for a few hours labor.

Anyone and everyone was cordially invited to bring in their parcels for gift wrapping at the modest sum of three items for 25 cents. This sum barely covered the cost of the wrapping materials required but the gift-wrap customers looked around the store as they waited and often became candy customers too.

This shop also offered to gift-wrap "on the house" any candy item or items totaling $1.50 or better. What's more they offered to weigh such items and affix in red pencil the amount of postage required. This helped customers in avoiding long waits at the local postoffice.

Finally, Candy-Land of Syracuse reasoned that this is indeed the air-age. Everyone is air conscious. For that reason they placed a huge map of the United States in their windows together with posters proclaiming the fact that candy could be airmailed as a most satisfactory last-minute Christmas gift.

To promote this idea Candy-Land used teaser type newspaper advertisements during the very last week before Christmas, reminding readers that they would gift-wrap and airmail candy gifts even a day or two before Christmas.

Bauers of Denver found that Christmas windows and interiors posed no problems when using

grade school and junior high Christmas artwork. They arranged with the school principals to have various classes hang their exhibits at the store for 48 hours. The series of exhibits started several weeks before Christmas so that many grades could be represented.

Newspaper advertisements each Monday informed the public when each grade would exhibit and children and parents alike stopped by the store to look at the artwork. Bauers treated the various classes to a school Christmas party in return for their exhibits.

Bauers is one of a number of enthusiastic merchandisers who have promoted candy for business Christmas gifts. Some confectioners have taken to writing personal letters to Jay-Cee and Chamber of Commerce members suggesting that they mail back a list of all the persons to whom a candy gift should be mailed, together with the price they wished to pay for the gift. The confectioner then handles the whole operation including gift-wrap and mailing wrap.

In an effort to encourage customers to purchase candy in quantity a good scheme is to offer a voucher good for, say, a king sized Christmas tree with every confectionery purchase totaling $15 or over. "Make this a candy giving Christmas" is a slogan which goes well with this type of promotion. Emphasize the fact that most people have at least a half dozen or more persons to whom candy could be sent and how every home can use an extra box of sweets at holiday time.

A special section set up as a Budget Bar featuring small boxes under $2 will appeal to children who want to give Mother and Father a gift out of their small allowances.

Remember that every organization in your community, Elks, Kiwanis, Eagles, D.A.R., Eastern Star, Rotary, Lions, etc., will probably have a members' Christmas party or special Christmas program. Obtain a list of the dates of as many of these Christmas events as possible. Your local newspaper will probably carry a notice at least a month ahead of time. Send a letter to the secretary of each association suggesting that the club use your candy as a favor or dessert at their Christmas get together. You might describe some especially appetizing pieces or some items which are particularly suited to Christmas.

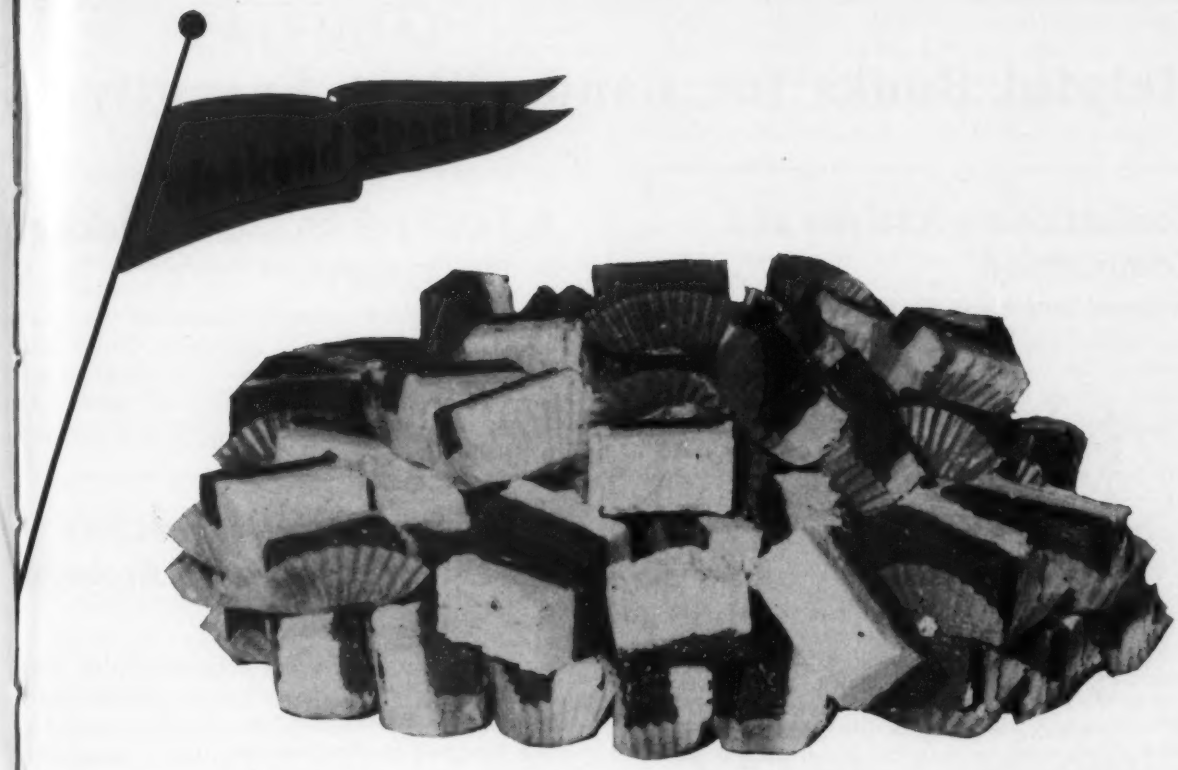
Other ideas are using gift certificates so that a person can give a candy gift to someone whose candy preference is not known, promoting post-Christmas specials as the perfect way to say "thank-you" for a gift received, and using window posters to remind housewives that candy is a "must" during the holidays—for dessert and for holiday nibbling.

Any one of these suggestions ought to help increase your Christmas sales. Perhaps they will be a springboard for a better idea of your own. Why not try something different this year instead of just tacking up the old Christmas decorations again. A little merchandising effort, kept within the bounds of good taste, at this season can pay off in good-will and better business for the whole year ahead.

Makers of Fine Chocolate and Cocoa

MERCKENS CHOCOLATE COMPANY
155 Great Arrow Avenue • Buffalo 7, New York

Branches and Warehouse Stocks in . . . BOSTON, NEW YORK, CHICAGO, LOS ANGELES, OAKLAND, SALT LAKE CITY, SEATTLE



Cocoanut Delights

BY ALAN HILLIARD
Hilliard's Kitch-in-Vue Candies

Formula:

20 lbs. white coating
1-1/2 lbs. 76°F. cocoanut oil or corn oil
4 lbs. fine macaroon cocoanut
Pink food color

Procedure:

Melt 10 pounds of the white coating and cool to 100°F. Add 12 ounces cocoanut or corn oil. Mix thoroughly.

Now stir in 2 pounds cocoanut. (Except for melting the coating, no heat is used for this product).

Cover a marble slab or steel table with wax paper and spread the batch 3/8" thick.

Make another batch using only 1 pound coating and 12 ounces of cocoanut or corn oil. To this very thin mixture add about a level teaspoon of pink food color. Mix well with a steel whip. This makes a deep pink mixture. Then add the remaining 9 pounds of coating (at 100°F.) and finally the 2 pounds of macaroon cocoanut.

When the first batch has firmed (about 10 minutes) spread the pink second batch on top. This may be done by hand or with a spatula. Leave the top slightly rough. The completed batch should be less than an inch thick.

Mark the finished batch with a roll cutter and when firm cut with a knife to 3/4" by 1-1/2". Cup and sell at a price somewhat below your regular chocolates as a Weekend Special. Any candy remaining can be placed in your regular line next week at full price.

The soft fat in the white coating prevents the candy from drying out; it remains fresh easily up to six weeks at room temperature. White coating, containing vegetable fats, imparts a fresh cocoanut flavor to the center. Variations can be had by using green, yellow and peach.

For variety chocolate may be used. Just add 2 pounds of milk chocolate to the 10 pound batch of white coating.

Flavor may be added if desired. It should be added right after the cocoanut butter while the batch is thin, before the coconut is added.

Another variation is to chocolate coat this piece. I do this on my Hilliard Marvel Coater and I temper with a Hilliard kettle, but you can do quite well with various other melters and could hand dip the chocolate coated pieces.

Helpful Books for Candy Plant Executives

Confectionery Analysis and Composition

by Stroud Jordan and Katheryn E. Langwill

This volume, first published in 1946, is still the only published reference work on the subject of confectionery analysis. It concerns itself with applicable data that covers composition of basic raw materials as well as that of the finished confections in which they have been employed.

Your Future Factory

by V. P. Victor, M.E., P.E.

A twenty page booklet contains the essentials of modern factory planning. It includes plant layout, process design, materials handling, building and structure, production line and financial planning. This is a reprint of the five part article which appeared in The Manufacturing Confectioner in 1958. Mr. Victor is well qualified to advise on factory layout since he has had considerable experience in such planning together with experience in design of candy machinery and process development. He is a consulting engineer with headquarters in New York City.

How to Salvage Scrap Candy

by Wesley H. Childs

This booklet is a complete revision of the author's work "Modern Methods of Candy Scrap Recovery" published in 1943. A considerable amount of information has been collected since that time on methods and techniques of salvaging scrap candy. This booklet covers all types of candy, and gives many practical and economical ways of converting scrap candy into a useful form for re-use.

A Textbook on Candy Making

by Alfred E. Leighton

Here is a textbook where the reader can learn the basic fundamentals of candy making, the "how" and "why" of the various operations in non-technical terms. Particular attention is given to the function of raw materials, and why each is included in a formula.

The Candy Buyers' Directory The Directory of Candy Brokers

1959 Edition

The Candy Buyers' Directory is an alphabetical and classified directory of wholesale candy manufacturers giving information on what type of candy is made by each firm, and in some cases the type of packaging used. The Directory of Candy Brokers is a geographical listing of over 600 candy brokers giving the accounts that they handle, the territory covered and the number of salesmen.

Profits Through Cost Control

by Frank Buese and Eric Weissenburger

This material deals with the problems of cost control in candy plants including planning for profit. The emphasis is on planning operations so that a profit will be made, and in early detection of those factors which will adversely affect profit.

- ☐ How to Salvage Scrap Candy **$2.00**
- ☐ Your Future Factory **$2.00**
- ☐ A Textbook on Candy Making **$6.00**
- ☐ The Candy Buyers' Directory and The Directory of Candy Brokers **$5.00**
- ☐ Confectionery Analysis and Composition **$6.00**
- ☐ Profits through Cost Control **$2.00**

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Publishing Company
418 N. Austin Blvd.
Oak Park, Illinois

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Gentlemen:

Enclosed is my check for $.....to cover the cost of the books I have checked at the left.

Name ..... Title .....

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City ..... Zone ..... State .....

CALENDAR

October 10; Carolina Confectionery Salesmens' Club, luncheon meeting, S & W Cafeteria, Charlotte, N. C.

October 10; Kansas City Candy Club, luncheon meeting, Town House Hotel, Kansas City, Kansas.

October 13; Chicago section, AACT, trip to Milprint, Inc. plant, Milwaukee. Buses leave Graemere Hotel at noon.

October 15; NCA Sanitation dinner meeting, 6:30 P.M., Furniture Club, 666 Lake Shore Drive, Chicago, Ill.

October 19; Confectionery Salesmens' Club of Philadelphia, 1:30 P.M. meeting, 2601 Parkway, Philadelphia, Pa.

October 31; Southwestern Candy Salesmens' Club, luncheon meeting, Sammy's Oak Lawn Restaurant, Dallas, Texas.

October 31; Gopher Candy Club, luncheon meeting 12:30 P.M., Normandy Hotel, Minneapolis, Minn.

October 31-November 3; National Automatic Merchandising Association, convention and exhibition, Navy Pier, Chicago, Ill.

November 2; Denver Mile Hi Candy Club, breakfast meeting, 7:30 A.M., Denver Athletic Club, Denver, Colo.

November 2; Retail Confectioners of Philadelphia, 6:30 P.M. meeting, Dairy Maid Restaurant, Germantown Ave., Philadelphia, Pa.

November 2-5; Air-Conditioning and Refrigeration Industry, 11th Exposition, Atlantic City, New Jersey.

November 3-5; Canadian National Packaging Exposition, Toronto.

November 7; Northern California section, AACT

November 8-12; National Association Concessionaires, convention and trade show, Hotel Sherman, Chicago, Ill.

November 16-18; Packaging Institute, 21st national packaging forum, Statler-Hilton, New York City.

Continued on Page 60

Licorice Pieces for Candy makers

Ready-cut for panning. The easy, economical way to make your own licorice lozenges.

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The Manufacturing Confectioner, published monthly at Pontiac, Illinois, for October 1, 1959.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mrs. Earl R. Allured, 418 N. Austin Blvd., Oak Park, Ill.; Editor, Mr. Stanley E. Allured, 418 N. Austin Blvd., Oak Park, Ill.

2. The owner is: The Manufacturing Confectioner Publishing Co., 418 N. Austin Blvd., Oak Park, Ill.; Mrs. Earl R. Allured, 418 N. Austin Blvd., Oak Park, Ill.; Allen R. Allured, 418 N. Austin Blvd., Oak Park, Ill.; James W. Allured, 418 N. Austin Blvd., Oak Park, Ill.; Stanley E. Allured, 418 N. Austin Blvd., Oak Park, Ill.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

STANLEY ALLURED, Editor

Sworn to and subscribed before me this 20th day of September, 1959.

[SEAL] DORIS G. EINFELDT

(My Commission expires March 5, 1960)

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COCOA BEANS – COCOA BUTTER

Cocoa and Chocolate Products

November 17-20; Packaging Machinery Manufacturers Institute Show of 1959, New York Coliseum.

November 20; St. Louis Candy Sales Association, Thanksgiving party, 7:30 P.M., Congress Hotel, St. Louis Mo.

December 10 & 11; WCSA, convention and annual meeting, LaSalle Hotel, Chicago.

1960

January 17-21; Philadelphia National Candy Show, Benjamin Franklin Hotel, Philadelphia, Pa.

January 24-26; NCWA, Western candy show and convention, Mark Hopkins Hotel, San Francisco, Calif.

March 9-11; Western Candy Conference, Claremont Hotel, Berkeley, Calif.

April 27-29; PMCA, 14th annual production conference, Franklin & Marshall College, Lancaster, Pa.

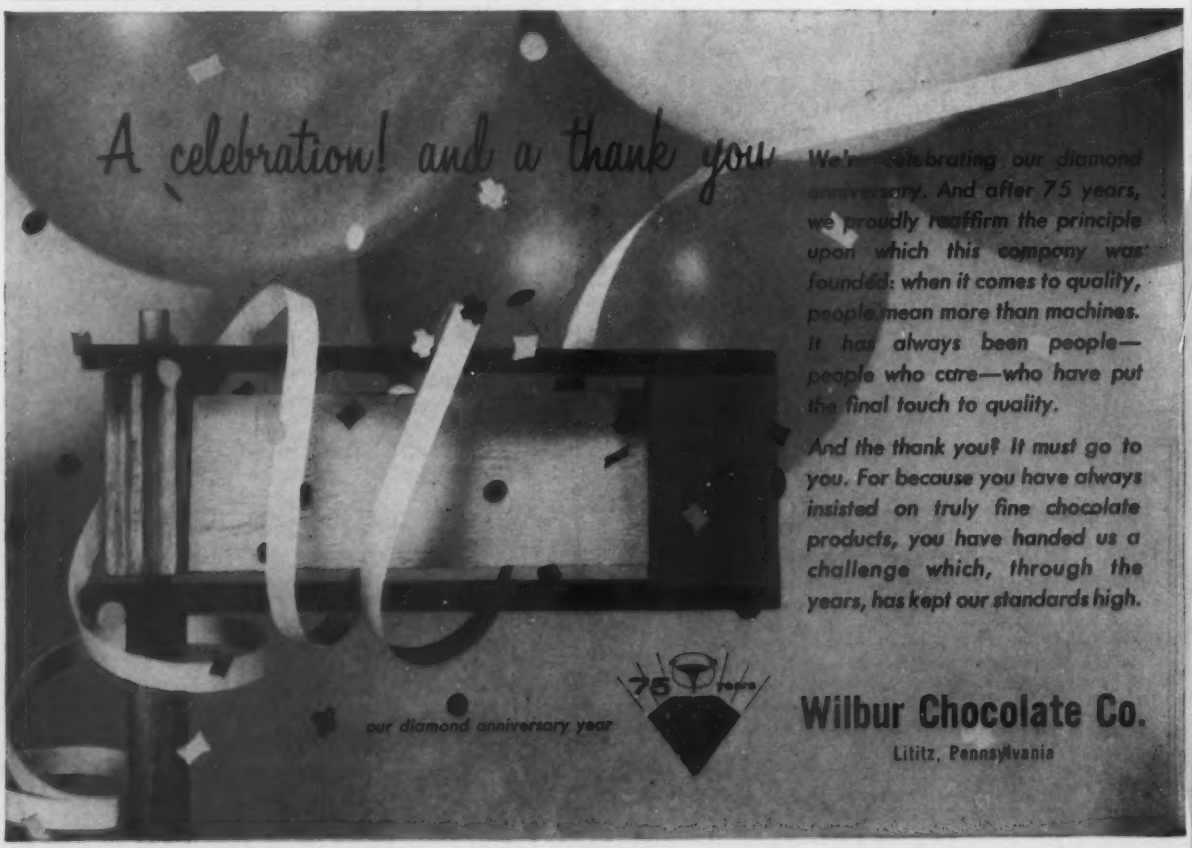
April 20-27; Interpack, 2nd international packaging exhibition, Dusseldorf, Germany.

June 5-9; National Confectioners Association, 77th annual convention, Philadelphia, Pennsylvania.

June 9-12; New York Candy Club & Metropolitan Candy Brokers Assn., 5th annual candy show, Trade Show Building, New York City.

July 10-13; SWTCA, convention, Hotel Roanoke, Roanoke, Virginia.

July 30-August 4; NCWA, 1960 convention, Sheraton-Park Hotel, Washington, D.C.


A celebration! and a thank you
We're celebrating our diamond anniversary. And after 75 years, we proudly reaffirm the principle upon which this company was founded: when it comes to quality, people mean more than machines. It has always been people—people who care—who have put the final touch to quality.
And the thank you? It must go to you. For because you have always insisted on truly fine chocolate products, you have handed us a challenge which, through the years, has kept our standards high.
our diamond anniversary year
75 years
Wilbur Chocolate Co.
Lititz, Pennsylvania

NEWSMAKERS

Nestle, Inc. has set up a new marketing program creating chocolate, coffee, and bulk and institutional divisions. Each marketing division will include sales, advertising, merchandising and product planning functions. **Thomas F. Corrigan** is general manager of the bulk and institutional division; **Donald Cady,** vice president, is general manager of the chocolate marketing division; and **Alistair Semple,** general manager of the coffee marketing division.

The Flavor Extract Manufacturers' Association and the Vanilla Bean Association of America are jointly sponsoring a Vanilla Agronomy Research Program to be conducted at the U.S.D.A. Federal Experiment Station in Mayaguez, Puerto Rico. Fundamental research has already begun on the nutritional needs of the Vanilla plant, the prevention of root-rot disease and other phases of its agronomy.

Edmund K. Gibbons has been appointed sales representative in the Ohio, Indiana and Kentucky market areas for the **Walter Baker Division** of General Foods' bulk chocolate sales.

The J. W. Greer Company will gradually absorb the activities of the Vacuum Candy Machinery Company and the Racine Confectioners Machinery Company into their Wilmington, Massachusetts plant. With the purchase of this company Greer hopes to improve both lines of equipment and to set up at the Greer plant the most complete center of machine design, manufacture and service in the country. **Claude J. Covert,** president of Vacuum-Racine, will remain as an advisor to the company. **William Genich,** chief engineer of Racine, will direct the engineering and new product development work of the Vacuum-Racine Division. **James Gardner,** Greer's confectionery machinery division manager, will head the sales effort of the new combination.

James A. Moffett, president of **Corn Products International** since 1958, has been elected to the post of senior vice president of **Corn Products Company. William H. Gamble,** who was named to the senior vice presidency in 1955, recently retired.

Research in by-products has resulted in making the **Ontario Paper Company** of Ontario, Canada the world's largest producer of vanillin. It is recovered from waste liquor in the manufacture of sulphite pulp for newsprint.

Frank C. Seager has been named assistant to the president of **Voss Belting and Specialty Company** and **Voss Engineering** of Chicago. **Mr. James Dwyer** has been advanced to the position of sales manager.

James P. Casey has been appointed director of starch sales of the **Union Starch and Refining Co.** and **Union Sales Corporation.** Mr. Casey was formerly associated with A. E. Staley Mfg. Co.

Finer Flavors FOR Finer Candies

CHERRY

RASPBERRY

MAPLE

BUTTERSCOTCH

AND MANY OTHERS

for 75 Years

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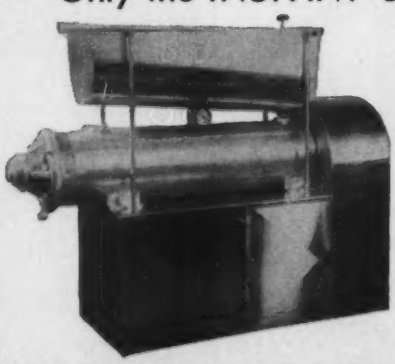
JACKSON, MICHIGAN

Only the *INSTANT* and *CONTINUOUS* FONDANT MACHINE

gives you these many advantages.



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No waiting, creams HOT syrup instantly,
No expensive pre-cooling equipment required,
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Fondant ready to use, without delay,
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CANDY MACHINERY

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WELL KNOWN FOOD MANUFACTURING PLANT

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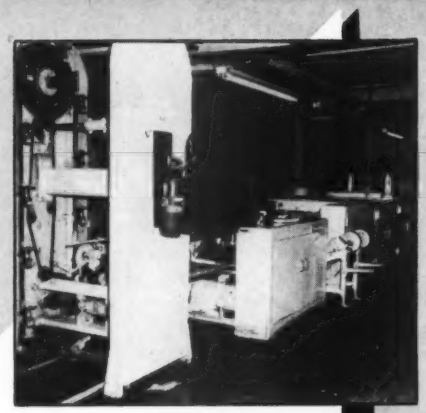
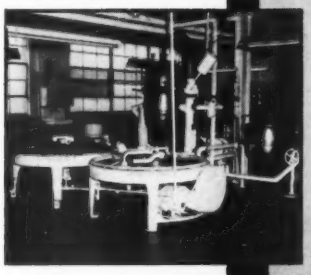
This M-100 Mogul is just like new, having been operated as a test plant for only a couple of years with only 1,000 trays available – by an AAA1 food company.

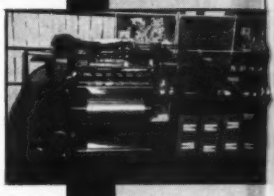
- Equipment just taken out of operation and is still set up in original position.
- Equipment was well maintained and is in excellent operating condition.
- These offerings are subject to prior sale.



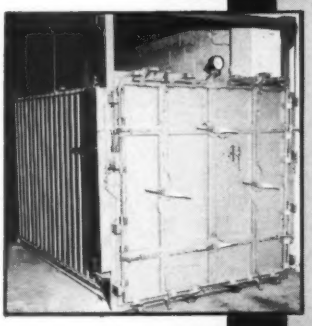
1956 Heavy Streamlined tional Equip M-100 Mogul D-100 Depo Stainless Steel per, Hydro-Se vertone Pump Candy Conv and with C Continuous St Cleaner.



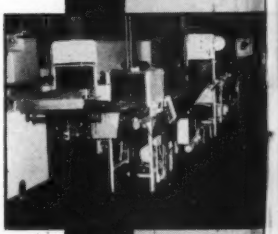
Simplex two-tilt Copper Dome Steam uum Cooker 2-Ball 5 ft. Cr Beaters with tors. Stainless S Steam Jack Dump Cook Kettle.

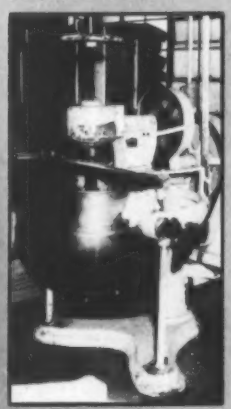


Hayssen Model 66L Wrapper, Serial No. 12170, less than 1 year old.



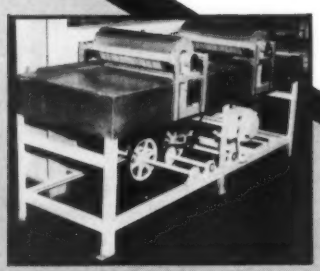
Walter Hae Co. No. Fumigat Chamber 6,000 lb nuts.





Savage Model F-6 50-gal. Stainless Steel, Double Agitator, Patent Tilting Mixing Kettle.

Gordon H. Wilcox Cluster Depositor.



W. C. Smith Caramel Cutter, Stainless Steel, Double Arbor.

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MACHINERY FOR SALE

FOR SALE

Bonus Cluster Machine
Model S # 3 Savage Fire Mixers.
20 gal. & 50 gal. Model F-6 Savage Tilting Mixers, copper kettle.
200 lb. Savage Oval Top Marshmallow Beaters.
Cut-Rol Cream Center Machines.
Triumph Candy Depositor
Bostonian Friend Hand Roll Machine
50" two cylinder Werner Beater.
1000 lb. Werner Syrup Cooler.
150 lb. to 500 lb. Chocolate Melters
24" and 32" N.E. Enrobers.
Simplex Gas Vacuum Cooker.
Simplex Steam Vacuum Cooker.
Savage Cream Vacuum Cooker.
600 lb. Continuous Vacuum Cooker.
Form 3 Hildreth Pullers.
6' and 7' York Batch Rollers.
National Wood Starch Buck.
Bausman Twin Disc Refiner Unit.
Ball and Dayton Cream Beaters.
100 gal. Copper Mixing Kettle with Double Action Agitator.
30 Gal. Stainless draw off steam jacketed kettles.
350 lb. cap. Resco chocolate melting and tempering kettle.
Savage and Racine Caramel Cutters
We guarantee completely rebuilt.

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COCOA PRESSES

Used current model 5-pot Verticals taken in trade on our horizontal machines. Carefully disassembled, inspected and reconditioned where necessary. Fully guaranteed by us, as the original manufacturer. Supplied as complete units with pumps, motors, spare parts, operating instructions, etc. Early delivery. Reasonably priced. Full particulars on request.

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For sale: Simplex gas-fired vacuum cooker; 3 ft., 4 ft., 5 ft. cream beaters; 50 to 300 lb. chocolate melters; gas stoves; cut roll cream center machines; pulling machines; York batch rollers; steam jacketed agitating kettles; water cooled slabs; marbles; Hobart & Reed vertical beaters; copper kettles; guillotine caramel cutting machine and other items. You will find it worth while to check our prices first. S. Z. Candy Machinery Co., 1140 N. American St., Philadelphia, Pa.

Transwrap "A" with electric eye, twin tube volumetric; G. D. twist wrapper; Latini supplementary steamer; Racine stick machine; Simplex gas fire cooker. Box 9592, The MANUFACTURING CONFECTIONER.

Carle & Montanari 4-stage sizer; PB Lynch wrapper with eye, magazine feed; Bausman quadruple chocolate grinding and mixing unit; Hohberger continuous cooker (2000 lbs/hr.); Hayssen 5-9 wrapper. Box 9593, The MANUFACTURING CONFECTIONER.

FA2-Q wrapper; Hayssen 7-17 wrapper; Racine EP sucker machine; Wrap-Ade pop wrapper; Simplex steam cooker; latest-type instant fondant machine; Werner twin cream beater with motor; Triangle triple-spout bag weigher. Box 9594, The MANUFACTURING CONFECTIONER.

SITUATION WANTED

Esq. available to take charge of chewing gum base department and general candy pan line. To this I will add that I have my own formula for synthetic chichly gum base which took me five years of research work. Also I will go in foreign countries to teach all this. Box 1286, The MANUFACTURING CONFECTIONER.

MISCELLANEOUS

Business for sale—Opportunity for qualified candymaker to establish himself in Washington, D.C. Fully equipped plant, low overhead, basic personnel available. Location superb for retail development by person with knowledge of candy business. Present volume predominatly wholesale. Outright sale or your arrangement will be carefully considered. Reason for sale is valid. Box 1091, THE MANUFACTURING CONFECTIONER.

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Assistant Superintendent wanted by New England manufacturer. Fine opening for bright young man who has had production experience. State age, experience, salary desired and when available. Box 9596, The MANUFACTURING CONFECTIONER.

LINES WANTED

Past 23 years representing Peter Paul, Sweets Co. of America, Smith Bros. Cough Drops, H. B. Reese Candy Co. in Chicago, Milwaukee and northern Illinois territory to all classes of trade who buy confections. Commission preferred. Les Netterstrom, 3315 N. New England Ave., Chicago 34, Ill., Kildare 5-8110.

WIRE FORMS: RACKS
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LOW PRICES WRITE
Fastorm Wire Division
6171 Carnegie Ave. ■ Cleveland 3, Ohio

WILL BUY. . .

Any kind of inedible cocoa residues, such as cocoa shells, cocoa dust, expeller cake, powder, coating, liquor, butter, or any fat-containing material.

ESTABLISHED 1875

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1400 SOUTH PENN SQUARE, PHILADELPHIA 2, PA.
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Buy or Sell

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Advertisements of suppliers are a vital part of the industrial publication's service to its readers. The following firms are serving the readers of *The Manufacturing Confectioner* by placing their advertisements on its pages. The messages of these suppliers are certainly a part of the literature of the industry. Advertising space in *The Manufacturing Confectioner* is available only to firms supplying equipment, materials, and services for the use of confectionery manufacturers.

★ ★ ★

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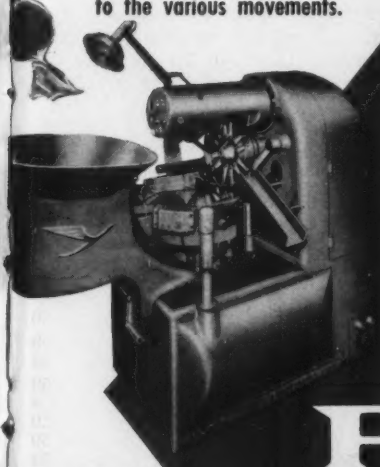
ROSE 5 I. S. T. WIST WRAPPER

put: *400 to 450 pieces per minute depending on shape of piece*

The Rose 5 I. S. T. is designed for the twist wrapping of irregular shaped candies.

- Equipped with a patented automatic feed.
- Self-lubrication throughout, oil being sprayed by a pump and filter to the various movements.



ROSE F. W. T. TRIUMPH

Form, Cut, Fold or Twist Wrapping Machine

Output: 650 pieces per minute on twist
550 pieces per minute on fold

The Rose Triumph is designed for the high speed production of twist or fold wrapped pieces showing the cut side through the wrapper. The wrapper may be cellophane, wax paper, wax-backed foil, with or without understrip.

Designed for today's *jet-speed* production requirements...

ROSE

Now is the time . . . in this keen competitive market . . . for you to install these advanced high speed wrapping machines so that you will be able to derive the benefits and profits from their high speed and lower cost per unit production.

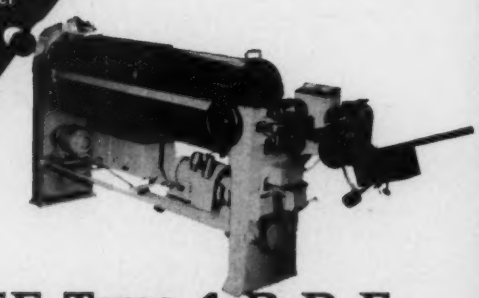
The Rose family of high speed wrapping machines were specially designed to fulfill today's relentless demand for highest speed production together with lower labor costs, and to produce the modern "eye appealing" wrap necessary for supermarket type of merchandising.

ROSE F. W. T.

rm, Cut and Twist Wrapping Machine

nput: 3 pieces per minute

The Rose F. W. T. is designed for forming, cutting and twist wrapping rectangular or cylindrical shaped toffees and hard candies in cellophane or wax paper, with and without an understrip or, wax paper with an overstrip.



ROSE Type 4 B. R. F. PLASTIC TOFFEE AND HARD CANDY BATCH ROLLER AND FEEDER

We can do any le of wrapping.

Tell us your requirements send us samples your candies.

mplete details mptly submitted.

NATIONAL

EQUIPMENT CORPORATION

ROSE MACHINERY DIVISION

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